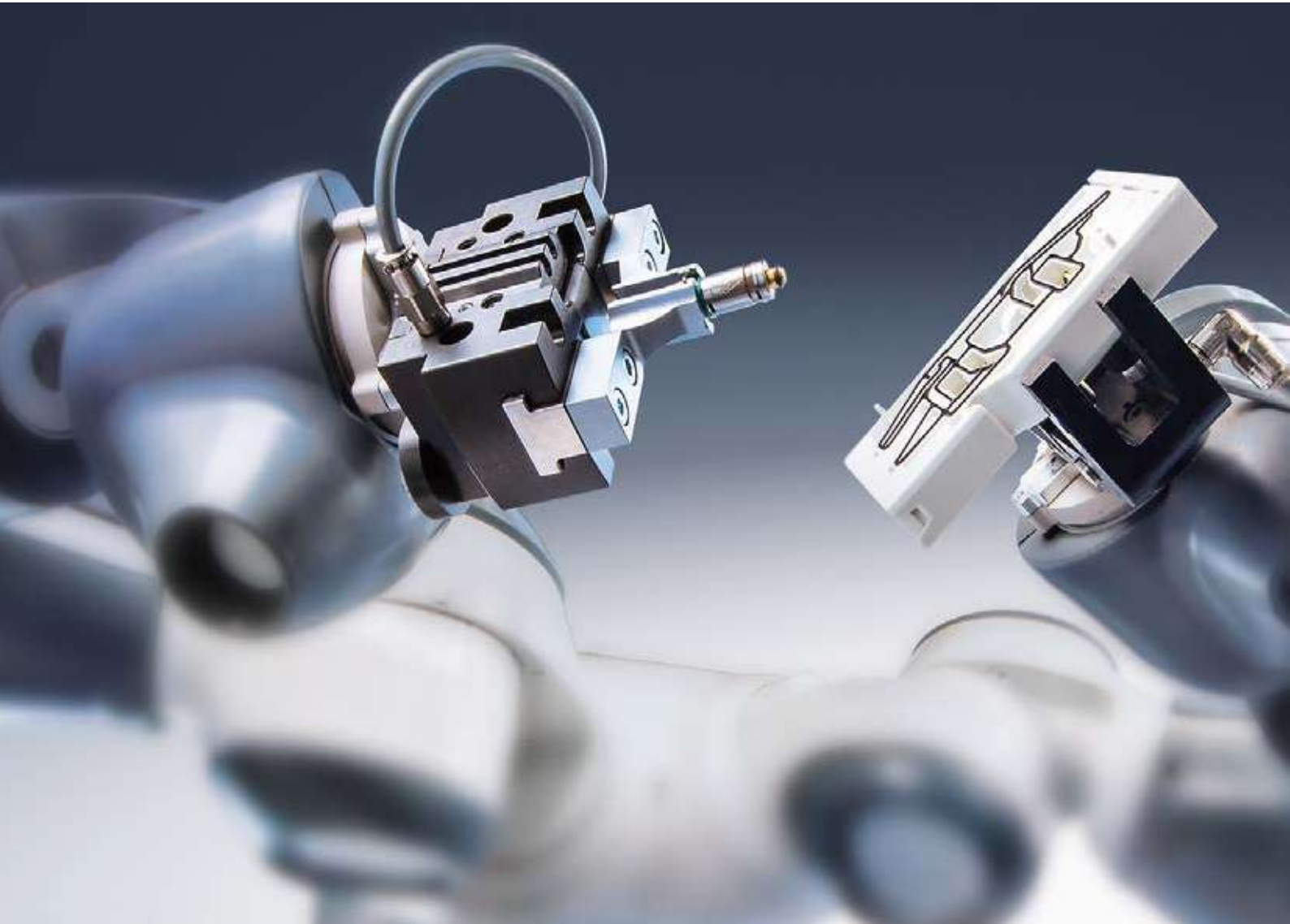


WELCOME TO CAMOZZI AUTOMATION

Camozzi Automation is a global leader in the design and production of motion and fluid control components, systems and technologies for industrial automation, transportation and life science industries.



Our catalogues

1 Pneumatic actuation



International standard cylinders
Compact cylinders
Stainless steel cylinders
Guided cylinders
Cylinders not according standards
Rotary cylinders
Rodless cylinders
Proximity switches
Hydrochecks, Rod lock, Shock absorbers

2 Electric actuation



Electromechanical cylinders
Electromechanical axes
Drives
Motors and gearboxes

3 Grippers



Angular grippers
Radial grippers
Parallel grippers
Three jaw grippers
Sprue grippers

4 Tools changer



Robot tool changer Series RTC

5 Vacuum components



Suction pads
Ejectors based on Venturi principle
Accessories
Filters

6 Valves and solenoid valves



Direct and indirect acting 2/2, 3/2 solenoid valves
Solenoid, pneumatic and manifold valves
Mechanical and manual valves
Logic valves
Automatic valves
Flow control valves
Silencers

7 Fieldbus and multipole systems



Valve islands
Multi-serial modules

8 Proportional technology



Proportional valves
Proportional regulators

9 Air treatment



Series MX Modular FRL Units
Series MC Modular FRL Units
Series MD Modular FRL Units
Series N FRL Units
Pressure regulators
Pressure switches and vacuum switches
Pressure boosters
Air treatment accessories

10 Fittings, connectors, tubing and accessories



Super-rapid fittings
Rapid fittings
Universal fittings
Fittings accessories
Quick-release couplings
Stainless steel fittings and adaptors
Mini ball valves
Fittings and accessories for applications of medical gases
Tubing, spirals and accessories

CAMOZZI AUTOMATION DIGITISED SOLUTIONS FOR INTELLIGENT MANUFACTURING



Camozzi Automation offers a wide range of **components, systems and technologies for the industrial automation sector**, the control of liquid and gas fluids as well as applications dedicated to the transportation industry and life sciences. Camozzi Automation's design architecture allows us to offer customers real added value with **high-performance and sustainable products**.

Our mission is to accompany you in the development of innovative **intelligent production** solutions that are energy efficient and share the same attention to the future of the environment and people. We make use of advanced technologies and digital solutions such as artificial intelligence (AI), machine learning and IoT to optimise production processes. With these technologies, we are able to carry out activities such as predictive maintenance – using automatic data analysis and learning algorithms for equipment monitoring and the prediction of maintenance times – scenario modelling



and simulation, which allows for the prompt implementation of changes in the real world, robotics to increase efficiency and reduce costs, and additive manufacturing for rapid prototyping.

Our goal is to work closely with customers to establish lasting relationships and accompany them into the future.

OUR SECTORS



Industrial Automation

- Packaging
- Food & Beverage
- Plastics & Rubber
- Automotive
- Electronic Systems
- Textile Machinery
- Assembly & Robotics
- Printing & Paper
- Woodworking Machinery



Life Science

- Medical Devices
- Biotechnologies



Transportation

- Truck & Trailer
- Bus & Coach
- Railway
- Off Highway
- Passenger Car & Light Duty Commercial

TECHNOLOGIES FOR PRODUCTION EFFICIENCY

We analyse each **individual application** and provide solutions by selecting the **best performing** technology, be that pneumatic, electric or proportional options. This overall vision requires **extensive expertise** both in terms of the technical features of the technologies and products, and the functional characteristics of the **requested applications**.

Camozzi Automation's **competitive advantage for customers** lies in the ability to offer all these technologies and combine them where necessary, optimising the individual movements and performance required for each **industrial application**.

OUR TECHNOLOGY VISION



Systems and solutions with intelligent components, interconnected with data analysis algorithms.



Safe energy-saving components and systems made using environmentally-friendly materials and processes.



CUSTOMISED, PLUG-IN PRODUCTS AND SOLUTIONS

Camozzi Automation offers a **wide range of standard and customised products and solutions** to help our partners improve time-to-market, as well as the efficiency and reliability of their machines.

With over 150 product lines and 50,000 codes available, we are able to provide **tailor-made solutions** to satisfy the specific needs of our customers.
















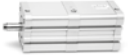









The experience accumulated over the years allows us to support our customers from concept **to the realisation of any solution**, while respecting constraints, regulations, technical requirements and project time frames.

Miniaturisation and space reduction are further significant objectives in production, within the framework of sustainability.














Advanced design methodologies, such as modelling, simulation and virtual reality, adopted by Camozzi Automation, enable the combination of key mechanical and digital technologies to develop innovative components and systems capable of **increasing machine productivity and flexibility**. They also allow remote control for predictive maintenance purposes, as well as the monitoring of production and energy consumption.

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PNEUMATIC ACTUATION




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1,5 folds

105



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2,5 folds

105



Series VSCF
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106



Series VPOL
Bellows suction pads (oval)
for Packaging - 1,5 folds

106



Series VPCL
Bellows suction pads (round)
for Packaging - 1,5 folds

107



Series VPCM
Bellows suction pads (round)
for Packaging - 2,5 folds

107



Series VPCN
Bellows suction pads (round)
for Packaging - 2,5 folds

108



Series VPCO
Bellows suction pads (round)
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108



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for Packaging - 4,5 folds

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Series VPCF
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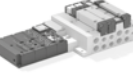





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<ul style="list-style-type: none"> Series 1000 Brass rapid push-on fittings for plastic tubes 	<ul style="list-style-type: none"> Page 355
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<ul style="list-style-type: none"> Series 29 Mini ball valves for pneumatics and industrial fluids 	<ul style="list-style-type: none"> Page 374
<ul style="list-style-type: none">  	
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<ul style="list-style-type: none">  	

Mini-cylinders Series 16, 23, 24 and 25

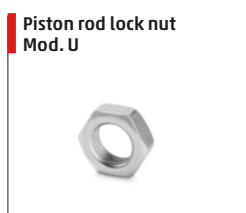
Series 16: \varnothing 8, 10, 12 mm - non-magnetic
 Series 23: \varnothing 16, 20, 25 mm - magnetic, auto-cushioned
 Series 24: \varnothing 16, 20, 25, 32 mm - magnetic
 Series 25: \varnothing 16, 20, 25, 32 mm - magnetic, cushioned



STANDARD STROKES

■ = Double-acting ✕ = Single-acting

Series	\varnothing	10	25	40	50	80	100	125	160	200	250	300	320	400	500
16	10	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
16	12	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
16	16	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
24	20	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
24	25	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
24	32	■✕	■✕	■✕	■✕	■	■	■	■	■	■				
23/25	16	■	■	■	■	■	■	■	■	■	■				
23/25	20	■	■	■	■	■	■	■	■	■	■				
23/25	25	■	■	■	■	■	■	■	■	■	■				
25	32	■	■	■	■	■	■	■	■	■	■				



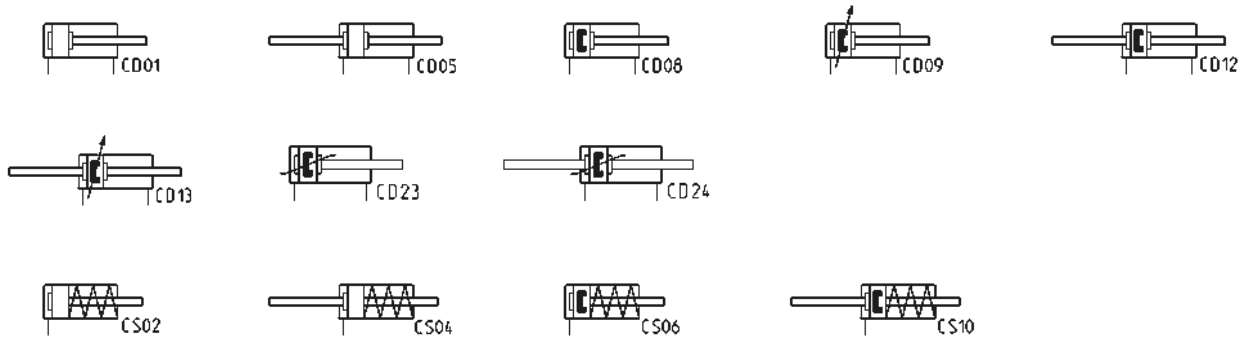
CODING EXAMPLE

24	N	2	A	16	A	100	
24	SERIES 16 = non magnetic, with mechanical cushioning 23 = magnetic, auto-cushioning 24 = magnetic, with mechanical cushioning 25 = magnetic, adjustable cushioning						
N	VERSION N = standard						
2	OPERATION 1 = single-acting, front spring, no cushion (only for series 16, 24) 2 = double-acting 3 = double-acting, through-rod 7 = single-acting, through-rod (only for series 16, 24)			PNEUMATIC SYMBOLS CS02 (s. 16) - CS06 (s. 24) CD01 (s. 16) - CD08 (s. 24) - CD23 (s.23) - CD09 (s. 25) CD05 (s. 16) - CD12 (s. 24) - CD24 (s.23) - CD13 (s. 25) CS04 (s. 16) - CS10 (s. 24)			
A	MATERIALS A = rolled stainless steel AISI 303 rod, stainless steel AISI 304 tube, anodized AL end-blocks						
16	BORE 08 = 8 mm (only for series 16) 10 = 10 mm (only for series 16) 12 = 12 mm (only for series 16) 16 = 16 mm (only for series 23, 24 and 25) 20 = 20 mm (only for series 23, 24 and 25) 25 = 25 mm (only for series 23, 24 and 25) 32 = 32mm (only for series 24, 25)						
A	CONSTRUCTION A = Nose nut Mod. V + Piston rod lock nut Mod. U RL = cylinder with rod lock (only for Ø20 - Ø25)						
100	STROKE (see the standard strokes table)						
	= standard V = rod seal in FKM W = all seals in FKM, +130°C (for series 25 only) (_ _ _) = extended rod _ _ _ mm						

PNEUMATIC ACTUATION 1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders Series 40K

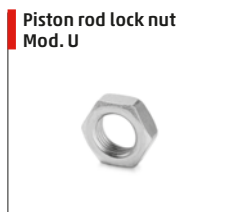
Double acting, cushioned, magnetic
Ø 160 - 200 - 250 - 320 mm



STANDARD STROKES

■ = Double-acting

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
160		■		■	■		■		■		■		■	■
200		■			■				■		■			
250		■			■				■		■			
320		■			■				■		■			

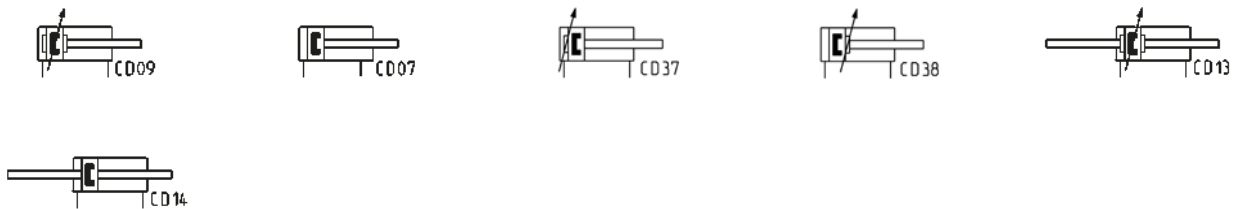


CODING EXAMPLE

40	K	2	L	160	A	0200	
40	SERIES						
K	VERSION K = standard, magnetic						
2	OPERATION 2 = double-acting, front and rear cushions 3 = double-acting, no cushion 4 = double-acting, rear cushions 5 = double-acting, front cushion 6 = double-acting, through-rod, front and rear cushions 8 = double-acting, through-rod, no cushion					PNEUMATIC SYMBOLS CD09 CD07 CD37 CD38 CD13 CD14	
L	MATERIALS L = Coated AL end blocks, AL piston, rolled AISI 420B stainless steel (Ø 160-200 mm) or chrome plated steel (Ø250-320 mm) rod, zinc-plated steel rod nut, anodized AL tube, zinc-plated steel tie-rods and tie-rod nuts, NBR-PU rod - piston and cushion seals, brass rod scraper ring T = stainless steel AISI 420B tie-rods - stainless steel AISI 303 tie-rod nuts C = rolled stainless steel AISI 303 piston rod, stainless steel AISI 304 piston rod nut U = rolled stainless steel AISI 303 piston rod, stainless steel AISI 304 piston-rod nut, stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts W = rolled stainless steel AISI 304 piston rod, stainless steel AISI 304 piston-rod nut, stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts Note: the rod of cylinders with bore of 250 and 320 mm is in C45E chrome plated steel.						
160	BORE 160 = 160 mm 200 = 200 mm 250 = 250 mm 320 = 320 mm						
A	TYPE OF BRACKET A = standard F = cylinder with centre trunnion						
0200	STROKE (see the standard strokes table)						
	= standard V = FKM rod seals W = all FKM seals +130°C C = PU coated cylinder. Colour: Grey* G = with brass rod scraper (chrome plated stainless steel AISI 420B rod, NBR rod seal) [Ø 250 and 320 excluded] (_ _ _) = extended piston rod _ _ _ mm Notes: the C version is available on request. For further details, contact our technical dept.						
	CERTIFICATIONS EX = ATEX						

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders - Aluminium profile Series 41K

Double-acting, cushioned, magnetic
Ø 160 - 200 mm



STANDARD STROKES

× = Double-acting

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
160		×			×		×		×				×	×
200		×			×				×					

<p>Foot mount Mod. B</p>	<p>Front and rear flange Mod. D-E</p>	<p>Front and rear female trunnion Mod. C-H</p>	<p>Rear male trunnion Mod. L</p>	<p>Centre trunnion Mod. F</p>
<p>90° Swivel combination Mod. ZS</p>	<p>Swivel combination Mod. C+L+S</p>	<p>Counter bracket for centre trunnion Mod. BF</p>	<p>Rod fork end Mod. G</p>	<p>Swivel ball joint Mod. GA</p>
<p>Clevis pin Mod. S</p>	<p>Piston rod lock nut Mod. U</p>	<p>Self aligning rod Mod. GK</p>	<p>Proximity switch Mod. CSN</p>	<p>Adapter Mod. S53 for CSN proximity switches</p>

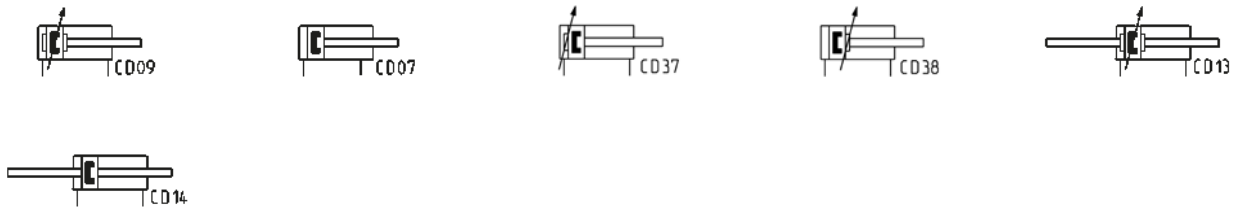
CODING EXAMPLE

41	K	2	P	160	A	0200	
41	SERIES						
K	VERSION K = standard magnetic						
2	OPERATION 2 = double-acting, front and rear cushions 3 = double-acting, no cushion 4 = double-acting, rear cushions 5 = double-acting, front cushion 6 = double-acting, through-rod, front and rear cushions 8 = double-acting, through-rod, no cushion					PNEUMATIC SYMBOLS CD09 CD07 CD37 CD38 CD13 CD14	
P	MATERIALS P = AL end blocks and piston - rolled AISI 420B stainless steel piston rod - zinc-plated steel piston rod nut - anodized AL-profile tube zinc-plated steel tie-rods and tie-rod nuts - NBR-PU rod - piston - cushion seals - brass rod scraper R = AISI 420B stainless steel tie-rods, AISI 303 stainless steel tie-rod nuts C = rolled AISI 303 stainless steel piston rod, AISI 304 stainless steel piston rod nut U = rolled stainless steel AISI 303 piston rod, AISI 304 stainless steel piston rod nut, stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts, AISI 420B stainless steel tie-rods, AISI 303 stainless steel tie-rod nuts W = rolled AISI 304 stainless steel piston rod, AISI 304 stainless steel piston rod nut, AISI 420B stainless steel tie-rods, AISI 303 stainless steel tie-rod nuts						
160	BORE 160 = 160 mm 200 = 200 mm						
A	TYPE OF DESIGN A = tie-rods F = cylinder with centre trunnion						
0200	STROKE (see the standard strokes table)						
	= standard V = FKM rod seals W = all FKM seals +130°C C = PU coated cylinder. Color: Grey * G = with brass rod scraper (chrome plated stainless steel AISI 420B rod, NBR rod seal) (_ _ _) = extended piston rod _ _ _ mm * Version C: available on request. For further information, please contact our technical dept.						
	CERTIFICATIONS EX = ATEX						

PNEUMATIC ACTUATION 1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



ISO 15552 cylinders Series 63

Single and double-acting, magnetic, cushioned
Ø 32, 40, 50, 63, 80, 100, 125 mm



STANDARD STROKES

■ = Single-acting, front spring (standard and high temperatures); ▲ = Single-acting, rear spring (standard and high temperatures);
✕ = Double-acting (standard, low friction, high/low temperatures) Other strokes up to 2500 mm are available on request.

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	■ ▲ ✕	■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	■ ▲ ✕	■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	■ ▲ ✕	■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	■ ▲ ✕	■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
80	■ ▲ ✕	■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
100		■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
125		■ ▲ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

<p>Opposed cylinder coupler Mod. DC-63</p>	<p>Foot mount Mod. B-41</p>	<p>Front and rear flange Mod. D-E</p>	<p>Rear female trunnion Mod. C and C-H</p>	<p>Front female trunnion Mod. H and C-H</p>	<p>Rear male trunnion Mod. L</p>
<p>Front/rear spot faced trunnion Mod. FN</p>	<p>Trunnion ball-joint Mod. R</p>	<p>Centre trunnion Mod. F for round tube cylinders</p>	<p>Centre trunnion Mod. F for profile cylinders</p>	<p>Accessory combination Mod. C+L+S</p>	<p>90° male trunnion Mod. ZC</p>
<p>Counter bracket for centre trunnion Mod. BF</p>	<p>Accessory to mount valves on the cylinder</p> <p>Mod. PCV-62-K3 to connect valves - solenoid valves Series 3 PCV-62-K4 to connect valves - solenoid valves Series 4 port G1/4 PCV-62-KEN to connect valves - solenoid valves Series EN PCV-62-K8 to connect valves - solenoid valves Series 4 port G1/8 and Series 3 port G1/4</p>		<p>Clevis pin Mod. S</p>	<p>Swivel ball joint Mod. GA</p>	
<p>Piston rod socket joint Mod. GY</p>	<p>Rod fork end Mod. G</p>	<p>Piston rod lock nut Mod. U</p>	<p>Self aligning rod Mod. GK</p>	<p>Coupling piece Mod. GKF</p>	<p>Special key to disassemble cylinders Ø 80-100, round tube</p>

CODING EXAMPLE

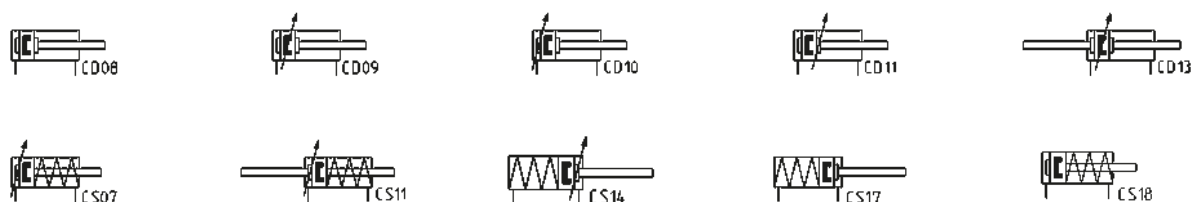
63	M	P	2	C	050	A	0200	W				
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63	SERIES	
M	VERSION M = standard, magnetic V = uniform movement (no stick slip), magnetic L = low friction, magnetic	
P	CONSTRUCTION T = round tube P = profile	
2	OPERATION 1 = single-acting, front spring 2 = double-acting 6 = double-acting, through-rod 7 = single-acting, through-rod 9 = single-acting, rear spring	PNEUMATIC SYMBOLS CS07/CS18 CD08 - CD09 - CD10 - CD11 CD13 CS11 CS14/CS17
C	CUSHIONING N = no cushioning (mechanical endstops) C = cushioning on both sides F = front cushioning R = rear cushioning	PNEUMATIC SYMBOLS CD08 CD09/CD13 CD11 CD10
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm	
A	CONSTRUCTIVE TYPE A = standard with rod nut RL = cylinder with rod lock DC = back to back cylinder with DC accessory [X1/X2] TR = back to back cylinder for round tube [X1/X2] F = cylinder with centre trunnion	
0200	STROKE = standard N = tandem / = more positions X1/X2 [X1<X2]	
W	TEMPERATURE RANGE = standard (-20°/+80°) W = high temperatures (150°C) Z = low temperatures (-40°C) Y = low temperatures (-50°C)	
	RESISTANCE TO CORROSION = standard C1 = rod nut AISI 304 stainless steel, rod AISI 304 stainless steel C2 = end cap treated screws (profile) or AISI 303 tie-rods and AISI 420B tie-rods (round tube) C3 = C2 + AISI 316 rod nut, AISI 316 rod C4 = C1 + C2 C5 = C3 + end caps with triple protection	
	ROD VARIATIONS = standard (male rod thread) F = female rod thread K = end caps with Kanigen treatment L = without rod seal (rear air inlet only)* V = FKM rod seal R = NBR rod seal U = unlubricated operation H = hydrolytic environment A = use in food and other frequent washdown applications G = dry and dusty environments (with brass rod scraper and chrome-plated stainless steel AISI 420B rod) B = cylinder with NBR bellows rod protection (_) = extended rod ___ mm	
	OTHER P = cylinder with RAL 7035 polyurethane coating	
	CERTIFICATIONS EX = ATEX	

* Only for low friction

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



END LOCK cylinders Series 63

Double-acting, magnetic, cushioned
Ø 32, 40, 50, 63, 80, 100, 125 mm



STANDARD STROKES

* = Double-acting (standard, high/low temperatures) Other strokes up to 2500 mm are available on request.

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40	*	*	*	*	*	*	*	*	*	*	*	*	*	*
50	*	*	*	*	*	*	*	*	*	*	*	*	*	*
63	*	*	*	*	*	*	*	*	*	*	*	*	*	*
80	*	*	*	*	*	*	*	*	*	*	*	*	*	*
100		*	*	*	*	*	*	*	*	*	*	*	*	*
125		*	*	*	*	*	*	*	*	*	*	*	*	*

<p>Opposed cylinder coupler Mod. DC-63</p>	<p>Foot mount Mod. B-41</p>	<p>Front and rear flange Mod. D-E</p>	<p>Rear female trunnion Mod. C and C-H</p>	<p>Front female trunnion Mod. H and C-H</p>	<p>Rear male trunnion Mod. L</p>
<p>Front/rear spot faced trunnion Mod. FN</p>	<p>Trunnion ball-joint Mod. R</p>	<p>Centre trunnion Mod. F-63 for cylinders, FL-type</p>	<p>Centre trunnion Mod. F-63 for cylinders, BL-type</p>	<p>Centre trunnion Mod. F-63 for cylinders, DL-type</p>	<p>Accessory combination Mod. C+L+S</p>
<p>90° male trunnion Mod. ZC</p>	<p>Counter bracket for centre trunnion Mod. BF</p>	<p>Clevis pin Mod. S</p>	<p>Swivel ball joint Mod. GA</p>	<p>Piston rod socket joint Mod. GY</p>	<p>Rod fork end Mod. G</p>
<p>Piston rod lock nut Mod. U</p>	<p>Self aligning rod Mod. GK</p>	<p>Coupling piece Mod. GKF</p>	<p>Screws and locking screws Mod. KR</p>		

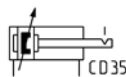
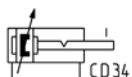
CODING EXAMPLE

63	M	P	2	C	050	A	0400	FL	W			
63	SERIES											
M	VERSION M = standard, magnetic											
P	CONSTRUCTION P = profile											
2	OPERATION 2 = double-acting											
C	CUSHIONING C = cushioning on both sides											
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm											
A	CONSTRUCTION A = standard with rod nut DC = back to back cylinder with DC accessory [x ₁ / x ₂] F = cylinder with centre trunnion											
0400	STROKE = standard											
FL	CONSTRUCTIVE TYPE FL = Front lock BL = Rear lock DL = Double lock						PNEUMATIC SYMBOLS CD34 CD35 CD36					
TEMPERATURE RANGE = standard (-20°/+80°) W = high temperatures (150°C) Z = low temperatures (-40°C) Y = low temperatures (-50°C)												
CORROSION RESISTANCE = standard C2 = treated end cap screws (profile) or AISI 303 tie-rod nuts and AISI 420B tie-rods (Ø 125) C3 = C2 + AISI 316 rod nut, AISI 316 rod C5 = C3 + end caps END LOCK with triple protection (only for constructive type FL and BL)												
TYPE OF MANUAL UNLOCKING = manual with M3 screw (not supplied) T = manual with unhooking pin and protective cover												
ROD VARIATIONS = standard (male rod thread) K = end caps without END LOCK with Kanigen treatment (only for constructive type FL and BL) V = FKM rod seal R = NBR rod seal G = dusty and dirty environments (with metal scraper and chrome-plated AISI 420B rod) B = cylinder with NBR bellow rod protection (__) = extended rod __ mm												
CERTIFICATIONS = standard EX = ATEX												

PNEUMATIC ACTUATION
1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders - Aluminium profile Series 61

Single and double-acting, magnetic, cushioned
Standard, low friction, low temperatures and tandem versions
Ø 32, 40, 50, 63, 80, 100, 125 mm



STANDARD STROKES

■ = Single-acting (standard and low temperature) ✕ = Double-acting (standard, low friction and low temperature)
Other strokes up to 2500 mm are available on request.

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
80	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
100		■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
125		✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

<p>Foot mount Mod. B</p>	<p>Front and rear flange Mod. D-E</p>	<p>Rear female trunnion Mod. C and C-H</p>	<p>Front female trunnion Mod. H and C-H</p>	<p>Rear male trunnion Mod. L</p>	<p>Centre trunnion Mod. F</p>
<p>Accessory combination Mod. C+L+S</p>	<p>90° male trunnion Mod. ZC</p>	<p>Trunnion ball-joint Mod. R</p>	<p>Counter bracket for centre trunnion Mod. BF</p>	<p>Clevis pin Mod. S</p>	<p>Swivel ball joint Mod. GA</p>
<p>Accessory to mount valves on the cylinder</p> <p>Mod. PCV-61-K3 to connect valves - solenoid valves Series 3 PCV-61-K4 to connect valves - solenoid valves Series 4 port G1/4 PCV-62-KEN to connect valves - solenoid valves Series EN PCV-61-K8 to connect valves - solenoid valves Series 4 port G1/8 and Series 3 port G1/4</p>	<p>Piston rod socket joint Mod. GY</p>		<p>Rod fork end Mod. G</p>	<p>Piston rod lock nut Mod. U</p>	
<p>Self aligning rod Mod. GK</p>	<p>Coupling piece Mod. GKF</p>	<p>Special key to disassemble cylinders Ø 80-100, round tube</p>			

CODING EXAMPLE

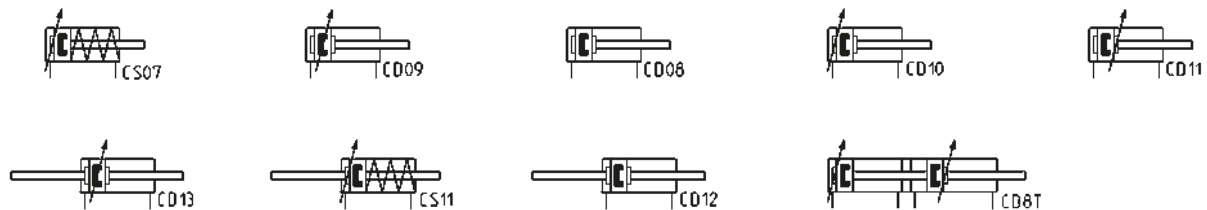
61	M	2	P	050	A	0200	
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61	SERIES	
M	VERSION M = standard, magnetic L = low friction, magnetic	
2	OPERATION 1 = single-acting, front spring (ø 32 ± ø 100) 2 = double-acting, front and rear cushioned 3 = double-acting, no cushion 4 = double-acting, rear cushioned 5 = double-acting, front cushioned 6 = double-acting, through-rod, front and rear cushioned 7 = single-acting, through-rod 8 = double-acting, through-rod, no cushion	PNEUMATIC SYMBOLS CS07 CD09 CD08 CD10 CD11 CD13 CS11 CD12
P	MATERIALS P = standard: AL end-blocks and piston, rolled stainless steel AISI 420B rod, anodized AL profile tube, zinc-plated steel tie-rods and tie-rod, nuts, PU seals R = stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts C = rolled stainless steel AISI 303 piston rod, stainless steel AISI 304 piston rod nut U = rolled stainless steel AISI 303 piston rod, AISI 304 piston-rod nut, AISI 420B tie-rods, AISI 303 tie-rod nuts W = rolled stainless steel AISI 304 piston rod, AISI304 piston-rod nut, AISI 420B tie-rods, AISI 303 tie-rod nuts Z = chrome plated stainless steel AISI 420B rod, stainless steel AISI 304 rod nut, stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts, seals for low temperature (-40°C), brass rod scraper Y = chrome plated stainless steel AISI 420B rod, stainless steel AISI 304 rod nut, stainless steel AISI 420B tie-rods, stainless steel AISI 303 tie-rod nuts, seals for low temperature (-50°C), brass rod scraper	
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm	
A	CONSTRUCTION A = standard with rod nut RL = cylinder with rod lock	
0200	STROKE (see the standard strokes table)	
	= standard V = FKM rod seal N = tandem (pneumatic symbol: CD8T) R = NBR rod seal W = all FKM seals +130°C C = PU coated cylinder. Colour: Grey* L = low friction version without rod seal (rear supply only) ** (_ _ _) = extended piston rod _ _ _ mm G = with brass rod scraper (chrome plated stainless steel AISI 420B rod, NBR rod seal)	
	* Version C: available on request. For further information, please contact our technical dept. ** The possibility to order the cylinder without piston rod seal, further reduces the friction force.	

Note: all double-acting cylinders are also available in the low friction version.

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Positioning Feedback cylinders Series 6PF

Double-acting low friction, magnetic
Ø 50, 63, 80, 100, 125 mm



STANDARD STROKES

× = Double-acting, low friction

Ø	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
50	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
63	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
80	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
100	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
125	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

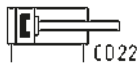
<p>Foot mount Mod. B</p>	<p>Front and rear flange Mod. D-E</p>	<p>Rear female trunnion Mod. C and C-H</p>	<p>Front female trunnion Mod. H and C-H</p>	<p>Rear male trunnion Mod. L</p>	<p>Centre trunnion Mod. F</p>
<p>Accessory combination Mod. C+L+S</p>	<p>90° male trunnion Mod. ZC</p>	<p>Trunnion ball-joint Mod. R</p>	<p>Counter bracket for centre trunnion Mod. BF</p>	<p>Clevis pin Mod. S</p>	<p>Swivel ball joint Mod. GA</p>
<p>Accessory to mount valves on the cylinder</p> <p>Mod. PCV-61-K3 to connect valves - solenoid valves Series 3 PCV-61-K4 to connect valves - solenoid valves Series 4 port G1/4 PCV-62-KEN to connect valves - solenoid valves Series EN PCV-61-K8 to connect valves - solenoid valves Series 4 port G1/8 and Series 3 port G1/4</p>			<p>Piston rod socket joint Mod. GY</p>	<p>Rod fork end Mod. G</p>	
<p>Piston rod lock nut Mod. U</p>	<p>Self aligning rod Mod. GK</p>	<p>Coupling piece Mod. GKF</p>	<p>Special key to disassemble cylinders Ø 80-100</p>	<p>Straight connector for power supply</p> <p>Mod. CS-LF04HB</p>	<p>Angular connector for power supply</p> <p>Mod. CS-LR04HB</p>
<p>Cable Mod. CS-LF05HB-D200/D500</p>	<p>Cable Mod. CS-LR05HB-D200/D500</p>				

CODING EXAMPLE

6PF	3	P	050	A	0200
6PF	SERIES				
3	OPERATION 3 = double-acting low friction, no cushion			PNEUMATIC SYMBOL CD22	
P	MATERIALS P = rod nut steel, rod seal NBR, rod guide bush sintered bronz, rod chrome plated steel, piston guide element acetal resin, piston aluminium, piston seal NBR, extrusion profile anodized aluminium, OR seal NBR, M12 connector nickel plated brass, grain steel, rear endcap aluminium, magnetic actuator neodymium, OR seal NBR, positioning sensor				
050	BORES 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm				
A	CONSTRUCTION A = standard with rod nut RL = cylinder with rod lock				
0200	STROKES (see the standard strokes table)				
	VERSIONS = standard P = PU rod seal V = FKM rod seal L = without rod seal (rear supply only) * G = with brass rod scraper EX = ATEX (___) = extended piston rod ___ mm				
	* The possibility to order the cylinder without piston rod seal further reduces the friction force.				

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



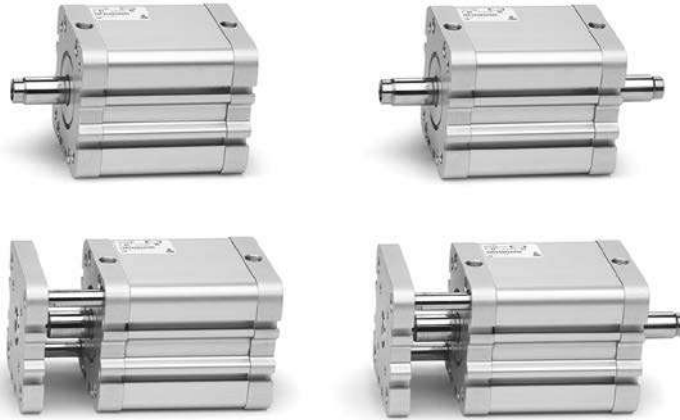
Compact cylinders ISO 21287 Series 32

Single and double-acting, non-rotating
Ø 20, 25, 32, 40, 50, 63, 80, 100, 125 mm



PNEUMATIC ACTUATION

1



STANDARD STROKES

✕ = Non-rotating ● = Double-acting, male/female rod thread ■ = Single-acting, front/rear spring, male/female rod thread

Ø	5	10	15	20	25	50	100	200	300	400	500
12	●■	●■	●■	●■	●■	●	●	●			
16	●■	●■	●■	●■	●■	●	●	●			
20	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●		
25	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●		
32	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	
40	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	
50	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	
63	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	
80	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	●
100	✕●■	✕●■	✕●■	✕●■	✕●■	✕●	✕●	✕●	✕●	✕●	●
125	●■	●■	●■	●■	●■	●	●	●	●	●	●

Foot mount Mod. B 	Rear female trunnion Mod. C and C-H 	Front female trunnion Mod. H and C-H 	Front and rear flange Mod. D-E 	Rear trunnion male Mod. L 	Swivel combination Mod. C+L+S
90° male trunnion Mod. ZC 	90° swivel combination for trunnion Mod. I 	Clevis pin Mod. S 	Rod fork end Mod. G 	Piston rod socket joint Mod. GY 	Swivel ball joint Mod. GA
Piston rod lock nut Mod. U 	Centring sleeve Mod. TR 	Self aligning rod Mod. GK 	Coupling piece Mod. GKF 	Front/rear spot faced trunnion Mod. FN 	Opposed cylinder coupler Mod. DC-32
Proximity switches Mod. CST 	Proximity switches Mod. CSH 	Proximity switches Mod. CSG 			

CODING EXAMPLE

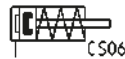
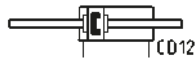
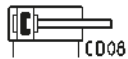
32	M	2	A	032	A	050	
32	SERIES						
M	VERSION M = male rod thread, mounted with rod nut Mod. U F = female rod thread R = antirotation with flange (from Ø20 to Ø100; no single-acting)						
2	OPERATION 1 = single-acting, front spring 2 = double-acting 3 = double-acting, through-rod 4 = single-acting, rear spring				PNEUMATIC SYMBOLS CS06 CD08 CD12 CS08		
A	MATERIALS A = anodized aluminium body, end blocks and piston, PU seals (rod, end-blocks OR and piston)						
032	BORES 012 = 12 mm 016 = 16 mm 020 = 20 mm 025 = 25 mm 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 125 = 125 mm						
A	CONSTRUCTION A = standard						
050	STROKE (see the table)						
	VARIANTS = standard V = FKM rod seal W = high temperatures (up to 140°C) non-magnetic (___) = stem longer than ___mm						

PNEUMATIC ACTUATION

1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Compact cylinders, Tandem and Multi-position versions Series 32

Double-acting, magnetic
Ø 25, 40, 63, 100 mm



PNEUMATIC ACTUATION

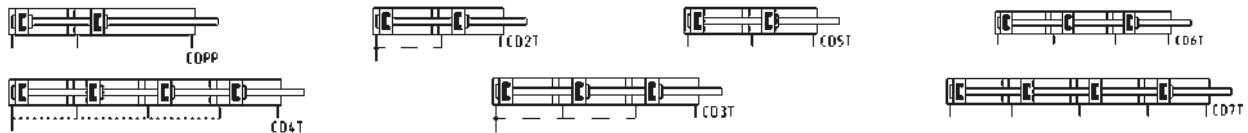
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CODING EXAMPLE

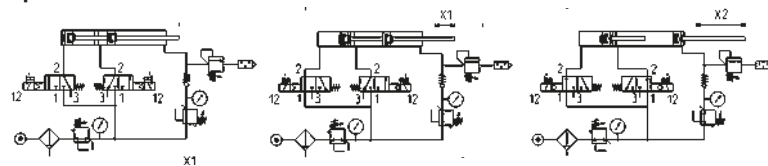
32	M	2	A	040	A	050	N	2
32	SERIES compact magnetic							
M	VERSION M = male rod thread, mounted with rod nut Mod. U - F = female rod thread							
2	OPERATION 2 = double-acting					PNEUMATIC SYMBOL CDPP		
A	MATERIALS A = anodized aluminium profile, end blocks and piston PU seals (rod - OR end block and piston)							
040	BORE 025 = 25 mm 040 = 40 mm 063 = 63 mm 100 = 100 mm					CD5T, CD6T, CD7T CD5T, CD6T, CD7T CD2T, CD3T, CD4T CD5T, CD6T, CD7T		
A	CONSTRUCTION A = standard							
050	STROKE - Tandem stroke in mm - Multi-position X1mm/X2mm. Insert the strokes without the initial 0 (see application scheme)							
N	Tandem and Multi-position							
2	STAGES (for Tandem version only) 2 = 2 stages							

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Operation scheme



Multi-position - Example: 32M2A040A25/75N
X1 = 25 mm
X2 = 75 mm



Tandem, stroke = 50 mm - Example: 32M2A040A050N2
In order to increase the speed of the rod's return, it is possible to remove the covers from the intermediate end caps and supply the positive chambers from the outside

Anti-rotation guide units Series 45

Suitable for cylinders:

- DIN/ISO 6432 (Ø 12, 16, 20, 25 mm)
- ISO 15552, previous DIN/ISO 6431 (Ø 32, 40, 50, 63, 80, 100 mm)



CODING EXAMPLE

45	N	UT	050	A	0100
45	SERIES				
N	VERSION N = standard				
UT	OPERATION UT = "U" self lubricating guide HT = "H" self lubricating guide HB = "H" ball guide				
050	BORE 016 = Ø 12-16 mm (available only in the UT version with "U" self lubricating guide) 020 = 20 mm 025 = 25 mm 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm				
A	MATERIALS A = anodized aluminium body - stainless steel AISI 420B columns for 45UT and 45HT - hardened steel C50 columns for 45HB				
0100	STROKE in mm				

Short-stroke cylinders Series QN

Single-acting, non magnetic
Ø 8, 12, 20, 32, 50, 63 mm



STANDARD STROKES

Ø	4	5	10	25
8	x			
12	x		x	
20	x		x	
32		x	x	x
50			x	x
63			x	x

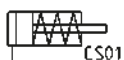
CODING EXAMPLE

QN	1	A	50	A	25
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QN	SERIES	
1	OPERATING 1 = single-acting	PNEUMATIC SYMBOL CS01
A	MATERIALS A = rolled stainless steel rod - aluminium body	
50	BORE 08 = 8 mm 12 = 12 mm 20 = 20 mm 32 = 32 mm 50 = 50 mm 63 = 63 mm	
A	TYPE OF DESIGN A = standard	
25	STROKE (see the standard strokes table)	

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Short-stroke cylinders Series QP - QPR

Series QP: single and double-acting, magnetic
Series QPR: double-acting magnetic, non-rotating
Ø 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm



STANDARD STROKES

■ = Double-acting ✕ = Single-acting ● = Non-rotating

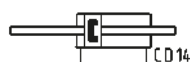
Ø	5	10	15	20	25	30	35	40	45	50	60	75	80	100
12	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕ ●	■ ●	■	■	■					
16	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■	■
20	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
25	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
32	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
40	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
50	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
63	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
80	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
100	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●

CODING EXAMPLE

QP	2	A	050	A	050	
QP	SERIES QP = standard - QPR = standard non-rotating					
2	OPERATION 1 = single-acting, front spring (only QP) 2 = double-acting 3 = double-acting, through-rod			PNEUMATIC SYMBOLS CS09 CD07 CD14		
A	MATERIALS A = rolled stainless steel rod - AL tube profile					
050	BORE 012 = 12 mm - 016 = 16 mm - 020 = 20 mm - 025 = 25 mm - 032 = 32 mm - 040 = 40 mm - 050 = 50 mm - 063 = 63 mm - 080 = 80 mm - 100 = 100 mm					
A	TYPE OF MOUNTING A = standard					
050	STROKE (see the standard strokes table)					
	= standard V = FKM rod seal W = all FKM seals (Ø 12 excepted)					

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Male trunnion bracket
Mod. L



Feet bracket
Mod. B



Short-stroke cylinders Series QL

Double-acting, magnetic and non magnetic
Ø 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm



STANDARD STROKES

■ = Double-acting ✕ = Double-acting long strokes ● = Double-acting through rod

Ø	5	10	15	20	25	30	35	40	45	50	75	100	125	150	175	200	250	300	
12	■	■	■	■	■	■													
16	■	■	■	■	■	■													
20	■	■	■	■	■	■	■	■	■	■									
25	■	■	■	■	■	■	■	■	■	■									
32	■	■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕
40	■	■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕
50		■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕
63		■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕
80		■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕
100		■	■	■	■	■	■	■	■	■	■	■	✕	✕	✕	✕	✕	✕	✕

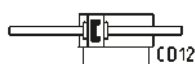
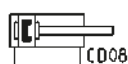
CODING EXAMPLE

QL	M	2	A	032	A	050
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QL	SERIES	
M	VERSION M = Magnetic - N = Non magnetic	
2	OPERATION 2 = double-acting 3 = double-acting, through-rod (only for M version)	PNEUMATIC SYMBOLS CD08 (M) - CDB1 (N) CD12 (M)
A	MATERIALS A = rolled stainless steel rod - AL tube profile	
032	BORE 012 = 12 mm - 016 = 16 mm - 020 = 20 mm - 025 = 25 mm - 032 = 32 mm - 040 = 40 mm - 050 = 50 mm - 063 = 63 mm - 080 = 80 mm - 100 = 100 mm	
A	CONSTRUCTION A = Standard - L = Long strokes (>100mm)	
050	STROKE (see the standard strokes table)	
	= Standard M = Male rod	
	= Standard EX = Atex	

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Foot bracket
Mod.B-QL



Foot bracket
Mod.BN-QL



Short stroke cylinders with non-rotating rod Series RPA

Double-effect, magnetic with hollow through rod and mounting stud
Bores: 20 and 30 mm



CODING EXAMPLE

RPA	20	R	010	A	20
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RPA	SERIES
20	BORE 020 = 20 mm 030 = 30 mm
R	VERSION R = non-rotating
010	STROKE 010 = 10 mm 015 = 15 mm 025 = 25 mm 030 = 30 mm 050 = 50 mm
A	CONSTRUCTION A = standard
20	STUD 14 = 14 mm 20 = 20 mm

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Compact cylinders Series 31

Double and single-acting, double-acting non-rotating, magnetic
 Ø 12, 16, 20, 25 mm
 Ø 32, 40, 50, 63, 80, 100 mm UNITOP



STANDARD STROKES

■ = Double-acting female, male ✕ = Non-rotating ● = Single-acting female, male

Ø	5	10	15	20	25	30	40	50	60	80
12	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕			
16	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕			
20	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕		
25	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕		
32	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕		
40	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
50		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
63		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
80		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
100		■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕ ●	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕

Foot mount
Mod. B



Rear and front flange
Mod. D-E



Female rear trunnion
Mod. C



Intermediate bracket
Mod. DC



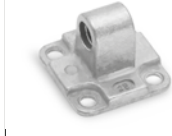
90° Swivel combination
for female trunnion
Mod. ZC



90° swivel combination
for trunnion Mod. I



Rear male trunnion
Mod. L



Piston rod lock nut
Mod. U



Swivel ball joint
Mod. GA



Rod fork end
Mod. G



Piston rod socket
joint Mod. GY



Self aligning rod
Mod. GK



Coupling piece
Mod. GKF



CODING EXAMPLE

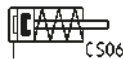
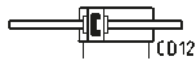
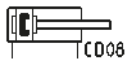
31	M	2	A	032	A	050	
31	SERIES compact magnetic						
M	VERSION M = male rod thread, mounted with rod nut Mod. U F = female rod thread R = non-rotating with flange only double-acting						
2	OPERATION 1 = single-acting, front spring 2 = double-acting 3 = double-acting, through-rod 4 = single-acting, rear spring 7 = single-acting, through-rod				PNEUMATIC SYMBOLS CS06 CD08 CD12 CS08 CS10		
A	MATERIALS A = rolled stainless steel AISI 303 rod - AL tube profile						
032	BORE 012 = 12 mm 016 = 16 mm 020 = 20 mm 025 = 25 mm 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm						
A	DESIGN TYPE A = standard						
050	STROKE (see the standard strokes table)						
	= standard V = rod seal FKM W = seals in FKM for high temperatures (140°C), only available in the double-acting, non magnetic version						

PNEUMATIC ACTUATION

1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Compact cylinders, Tandem and Multi-position versions Series 31

Double-acting, magnetic
Ø 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm

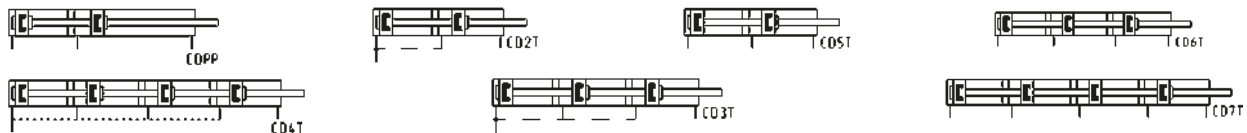


CODING EXAMPLE

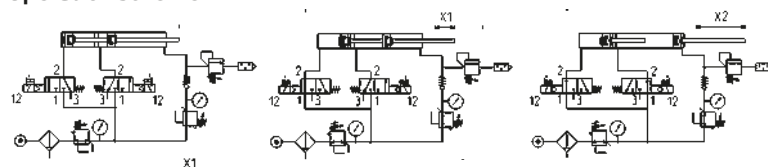
31	M	2	A	032	A	050	N	2
31	SERIES							
M	VERSION M = male rod thread, mounted with rod nut Mod. U - F = female rod thread							
2	OPERATION 2 = double-acting						PNEUMATIC SYMBOLS CDPP	
A	MATERIALS A = rolled stainless steel rod AISI 303 - AL tube profile							
032	BORE 012 = 12 mm - 016 = 16 mm - 020 = 20 mm - 025 = 25 mm 032 = 32 mm - 040 = 40 mm - 050 = 50 mm - 063 = 63 mm 080 = 80 mm - 100 = 100 mm						CD5T, CD6T, CD7T CD2T, CD3T, CD4T CD2T, CD3T, CD4T	
A	CONSTRUCTION TYPE A = standard							
050	STROKE - tandem stroke (mm) - multi-position X1mm/X2mm. Insert stroke without the initial 0 (see application scheme)							
N	TANDEM AND MULTI-POSITION							
2	STAGES (only for tandem) 2 = 2 stages - 3 = 3 stages - 4 = 4 stages							

PNEUMATIC SYMBOLS

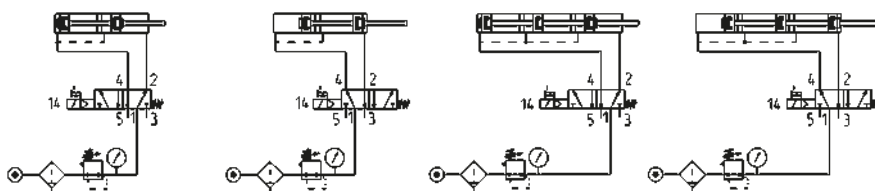
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Operation scheme



Multi-position
Example for ordering:
X1 = 25 mm and X2 = 100 mm
31M2A032A25/100N



Tandem
Example for ordering:
stroke 25 mm
31M2A032A025N2 (2 stages)

Stopper cylinders Series ST

Single and double-acting, magnetic, non-rotating
Sizes 20, 32, 40, 50 mm



STANDARD STROKES

✕ = Single-acting and double-acting

Mod.	∅	10	15	20	25	30
ST31	20		✕			
ST31	32			✕		
ST31	50					✕
ST32	20	✕	✕			
ST32	32		✕	✕	✕	
ST32	40			✕	✕	✕
ST32	50			✕	✕	✕

CODING EXAMPLE

ST	31	2	A	050	A	030
ST	SERIES					
31	CONSTRUCTION STANDARD 31 = UNITOP - 32 = ISO 21287					
2	OPERATION 2 = double-acting 4 = single-acting, rear spring 9 = double-acting, rear spring			PNEUMATIC SYMBOLS CD20 / CD08 CS15 / CS08 CS16 / CS17		
A	DESIGN A = standard - R = non-rotating (for Mod. ST32 only)					
050	BORE 020 = 20 mm - 032 = 32 mm - 040 = 40 mm (for Mod. ST32 only) - 050 = 50 mm					
A	CONSTRUCTION A = standard - R = with roller (for non-rotating version only) - F = with female thread (for Mod. ST32 only)					
030	STROKE (see the standard strokes table)					
	VERSION = standard (___) = extended piston rod ___ mm					

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Stainless steel cylinders Series 90

Single and double-acting, cushioned, magnetic
Ø 32, 40, 50, 63, 80, 100 and 125 mm



PNEUMATIC ACTUATION

1



STANDARD STROKES

× = Double-acting ● = Single-acting

Ø	25	50	80	100	125	150	160	200	250	300	320	400	500
32	×●	×●	×	×	×	×	×	×	×	×	×	×	×
40	×●	×●	×	×	×	×	×	×	×	×	×	×	×
50	×●	×●	×	×	×	×	×	×	×	×	×	×	×
63	×●	×●	×	×	×	×	×	×	×	×	×	×	×
80	×●	×●	×	×	×	×	×	×	×	×	×	×	×
100	×●	×●	×	×	×	×	×	×	×	×	×	×	×
125		×●	×	×	×	×	×	×	×	×	×	×	×

<p>Foot mount Mod. B</p>	<p>Front and rear flange Mod. D-E</p>	<p>Rear trunnion, female Mod. C-H</p>	<p>Rear trunnion, male Mod. L</p>	<p>Tight rear female trunnion bracket Mod. CR</p>	<p>Male trunnion bracket with swivel ball joint Mod. R</p>
<p>90° male trunnion bracket with swivel ball joint Mod. ZCR</p>	<p>90° male trunnion Mod. ZC</p>	<p>Rod fork end Mod. G-90</p>	<p>Clevis pin Mod. S-90</p>	<p>Antirotating clevis pin Mod. SR-90</p>	<p>Swivel ball joint Mod. GA-90</p>
<p>Piston rod lock nut Mod. U-90</p>					

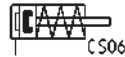
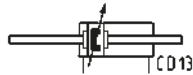
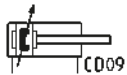
CODING EXAMPLE

90	M	2	A	050	A	0200	
90	SERIES						
M	VERSION M = standard, magnetic						
2	OPERATION 1 = single-acting, front spring 2 = double-acting, front and rear cushions 6 = double-acting, through-rod, front and rear cushions				PNEUMATIC SYMBOLS CS06 CD09 CD13		
A	MATERIALS A = stainless steel AISI 316, seals in NBR V = stainless steel AISI 316, all seals in FKM (150°C)						
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm						
A	TYPE OF DESIGN A = standard with piston rod lock nut Mod. U						
0200	STROKE (see the standard strokes table)						
	= standard V = rod seal in FKM						

PNEUMATIC ACTUATION
1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Stainless steel mini-cylinders Series 94 and 95

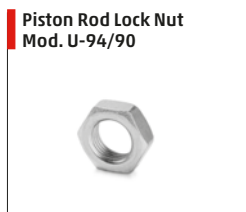
Single-acting and double-acting, magnetic
Series 94: Ø 16, 20, 25 mm
Series 95: Ø 25 mm, cushioned



STANDARD STROKES

● = Single-acting ✕ = Double-acting

Ø	10	25	40	50	80	100	125	160	200	250	300	320	400	500
94 16	● ✕	● ✕	● ✕	● ✕	✕	✕	✕	✕	✕					
94 20	● ✕	● ✕	● ✕	● ✕	✕	✕	✕	✕	✕	✕	✕			
94 25	● ✕	● ✕	● ✕	● ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
95 25	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕



CODING EXAMPLE

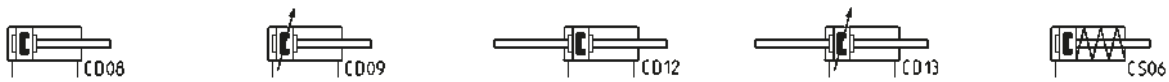
94	N	2	A	16	A	100	
94	SERIES 94 = magnetic 95 = magnetic, cushioned						
N	VERSION N = standard						
2	OPERATION 1 = single-acting, front spring 2 = double-acting 3 = double-acting, through-rod				PNEUMATIC SYMBOLS CS06 (S. 94) CD08 (S. 94) - CD09 (S. 95) CD12 (S. 94) - CD13 (S. 95)		
A	MATERIALS A = stainless steel, seals in NBR V = stainless steel, all seals in FKM (150°C)						
16	BORE 16 = 16 mm 20 = 20 mm 25 = 25 mm						
A	TYPE OF DESIGN A = standard with locking ring for end cap Mod. V and piston rod lock nut Mod. U						
100	STROKE (see the standard strokes table)						
	= standard V = rod seal in FKM						

PNEUMATIC ACTUATION

1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Stainless steel cylinders Series 97

Single and double-acting, cushioned, magnetic
Ø 32, 40, 50, 63 mm



STANDARD STROKES

● = Single-acting ✕ = Double-acting

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	✕ ●	✕ ●	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	✕ ●	✕ ●	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	✕ ●	✕ ●	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	✕ ●	✕ ●	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

**Foot mount
Mod. B**



**Trunnion bracket
Mod. I**



**Rear female trunnion
bracket Mod. C-H**



**Tight rear female trunnion
bracket Mod. CR**



**Male trunnion bracket with
swivel ball joint Mod. R**



**90° male trunnion bracket
with swivel ball joint
Mod. ZCR**



**Rod fork end
Mod. G-90**



**Swivel ball joint
Mod. GA-90**



**Piston rod lock nut
Mod. U-90**



**Nose nut
Mod. V-97**



**Clevis pin
Mod. S-90**



**Clevis pin
Mod. S-97**



**Antirotating clevis pin
Mod. SR-90**

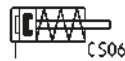
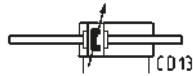
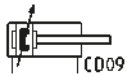


CODING EXAMPLE

97	M	2	A	050	A	0200	
97	SERIES						
M	VERSIONS M = rear male hinge S = articulated rear male hinge F = rear female hinge T = front and rear threaded end blocks A = front end block with pin						
2	OPERATION 1 = single-acting, front spring 2 = double-acting, front and rear cushions 6 = double-acting, through-rod, front and rear cushions (T and A versions only)					PNEUMATIC SYMBOLS CS06 CD09 CD13	
A	MATERIALS A = stainless steel AISI 304 - PU seals V = stainless steel AISI 304 - FKM seals (150°C)						
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm						
A	TYPE OF DESIGN A = standard (locking ring for end cap V + lock nut for rod U)						
0200	STROKE (see the standard strokes table)						
	= standard V = rod seal in FKM						

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders with integrated guide Series QC

Double-acting, magnetic piston, guided
Ø 20, 25, 32, 40, 50, 63 mm



PNEUMATIC ACTUATION
1

STANDARD STROKES

■ = Double-acting
Out of standard intermediate strokes available on request (strokes multiple of 5 mm)

Ø	20	25	30	40	50	75	100	125	150	175	200
20	■		■	■	■	■	■	■	■	■	■
25	■		■	■	■	■	■	■	■	■	■
32		■		■	■	■	■	■	■	■	■
40		■		■	■	■	■	■	■	■	■
50		■		■	■	■	■	■	■	■	■
63		■		■	■	■	■	■	■	■	■

CODING EXAMPLE

QC	T	2	A	020	A	050
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QC	SERIES
T	VERSION T = sintered bronze bushes B = linear ball bearings
2	OPERATION 2 = double-acting PNEUMATIC SYMBOL CD07
A	MATERIALS A = anodized aluminium body - rolled stainless steel AISI 303 piston rod - rolled stainless steel AISI 420B columns for QCT - hardened steel C50 columns for QCB
020	BORE 020 = 20 mm - 025 = 25 mm - 032 = 32 mm - 040 = 40 mm - 050 = 50 mm - 063 = 63 mm
A	TYPE OF DESIGN A = standard
050	STROKE (see the standard strokes table)

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders with integrated guide Series QCTF - QCBF

Double-acting, magnetic, with double bearings and flanges
Ø 20, 25, 32, 40 mm



STANDARD STROKES

■ = Type A and C Out of standard intermediate strokes available on request (strokes multiple of 5 mm)
 ✕ = Type B

Ø	20	25	30	40	50	75	100	125	150	175	200
20	■		■	■	■	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
25	■		■	■	■	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
32		■			■	■	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕
40		■			■	■	■ ✕	■ ✕	■ ✕	■ ✕	■ ✕

CODING EXAMPLE

QC	T	F	2	A	020	A	050
QC	SERIES						
T	TYPE OF BEARING T = sintered bronze bushes B = linear ball bearings						
F	VERSION F = double flange						
2	OPERATION 2 = double-acting					PNEUMATIC SYMBOL CD 14	
A	MATERIALS A = anodized aluminium body - rolled stainless steel piston rod AISI 303 rolled stainless steel AISI 420B columns for QCTF - hardened steel C50 columns for QCBF						
020	BORE 020 = 20 mm - 025 = 25 mm - 032 = 32 mm - 040 = 40 mm						
A	CUSHION A = fixed mechanical cushion (standard) B = two shock absorbers located on the body C = one shock absorber located on the rear flange						
050	STROKE (see the standard strokes table)						

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Twin cylinders Series QX

Double-acting, magnetic, guided
Ø 10x2, 16x2, 20x2, 25x2, 32x2 mm



STANDARD STROKES

■ = Double-acting

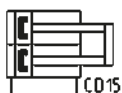
Ø	10	20	30	40	50	75	100
10	■	■	■	■	■	■	■
16	■	■	■	■	■	■	■
20	■	■	■	■	■	■	■
25	■	■	■	■	■	■	■
32	■	■	■	■	■	■	■

CODING EXAMPLE

QX	T	2	A	020	A	050
QX	SERIES					
T	VERSION T = sintered bronze bushes B = linear ball bearings					
2	OPERATION 2 = double-acting (1 flange) radial / axial pressure supply 3 = double-acting through-rod (double-flange), radial pressure supply				PNEUMATIC SYMBOLS CD15 CD16	
A	MATERIALS A = anodized aluminium body, rolled stainless steel AISI 303 (QXT) or hardened steel C50 (QXB) piston rod					
020	BORE 010 = 10 mm - 016 = 16 mm - 020 = 20 mm - 025 = 25 mm - 032 = 32 mm					
A	TYPE OF DESIGN A = standard					
050	STROKE (see the standard strokes table)					

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Pneumatic mini slides Series MSN

New

Size: 6, 10, 16, 20



PNEUMATIC ACTUATION
1

STANDARD STROKES

■ = Double-acting

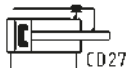
∅	5	10	15	20	25	30	40	50	60
6	■	■	■	■	■	■			
10	■	■	■	■	■	■	■	■	
16	■	■	■	■	■	■	■	■	■
20	■	■	■	■	■	■	■	■	■

CODING EXAMPLE

MSN	10	-	30
MSN	SERIES		
10	SIZE 6 10 16 20		
30	STROKE (see the standard strokes table)		

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Magnetic proximity switches,
3-wire cable, D-slot



Magnetic proximity switches,
3-wire cable, D-slot with 90° cable



Magnetic proximity switches,
male M8 3-pin conn., D-slot, straight



Magnetic proximity switches,
male M8 3-pin conn., D-slot, 90°



Pneumatic mini slides Series MST

New

Size: 6, 8, 12, 16, 20, 25



STANDARD STROKES

■ = Double-acting

∅	10	20	30	40	50	75	100	125	150
6	■	■	■	■	■				
8	■	■	■	■	■	■			
10	■	■	■	■	■	■	■		
12	■	■	■	■	■	■	■	■	
16	■	■	■	■	■	■	■	■	■
25	■	■	■	■	■	■	■	■	■

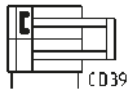
CODING EXAMPLE

MST		12		-		40
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MST	SERIES
12	SIZE 6 8 12 16 20 25
40	STROKE (see the standard strokes table)

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Magnetic proximity switches,
3-wire cable, D-slot



Magnetic proximity switches,
3-wire cable, D-slot with 90° cable



Magnetic proximity switches,
male M8 3-pin conn., D-slot, straight



Magnetic proximity switches,
male M8 3-pin conn., D-slot, 90°



Stroke adjusting screw
at extension end



Stroke adjusting screw
at retraction end



Shock absorber screw
at extension end



Shock absorber screw
at retraction end



Compact mini-cylinders Series 14

Single-acting
Bores Ø 6, 10, 16 mm and strokes 5, 10, 15 mm
With super-rapid fitting Ø 4 and M5 port

with non threaded piston rod

Super-rapid fitting incorporated

Mod.	Ø	STROKE
14N1A06A05	6	5
14N1A06A10	6	10
14N1A06A15	6	15
14N1A10A05	10	5
14N1A10A10	10	10
14N1A10A15	10	15
14N1A16A05	16	5
14N1A16A10	16	10
14N1A16A15	16	15



with threaded piston rod

Super-rapid fitting incorporated

Mod.	Ø	STROKE
14N1A06B05	6	5
14N1A06B10	6	10
14N1A06B15	6	15
14N1A10B05	10	5
14N1A10B10	10	10
14N1A10B15	10	15
14N1A16B05	16	5
14N1A16B10	16	10
14N1A16B15	16	15



with non threaded piston rod

Threaded port

Mod.	Ø	STROKE
14N1M06A05	6	5
14N1M06A10	6	10
14N1M06A15	6	15
14N1M10A05	10	5
14N1M10A10	10	10
14N1M10A15	10	15
14N1M16A05	16	5
14N1M16A10	16	10
14N1M16A15	16	15



with threaded piston rod

Threaded port

Mod.	Ø	STROKE
14N1M06B05	6	5
14N1M06B10	6	10
14N1M06B15	6	15
14N1M10B05	10	5
14N1M10B10	10	10
14N1M10B15	10	15
14N1M16B05	16	5
14N1M16B10	16	10
14N1M16B15	16	15



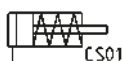
CODING EXAMPLE

14	N	1	A	06	A	05
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14	SERIES	
N	VERSION N = non-magnetic	
1	OPERATION 1 = single-acting	PNEUMATIC SYMBOL CS01
A	TYPE OF CONNECTION A = tube Ø 4 M = thread M5	
06	BORE 06 = 6 mm 10 = 10 mm 16 = 16 mm	
A	TYPE OF DESIGN A = non-threaded smooth piston rod B = threaded piston rod	
05	STROKE 05 = 5 mm 10 = 10 mm 15 = 15 mm	

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Roundline cylinders Series 27













Double-acting, magnetic
Ø 20, 25, 32, 40, 50, 63 mm



STANDARD STROKES

Mod. 27M and 27T (Ø 20 ÷ 40) and Mod. 27U (Ø 20 ÷ 63)

Ø	10	25	40	50	80	100	125	160	200	250	300	320	400	500
20	■	■	■	■	■	■	■	■	■	■	■	■	■	■
25	■	■	■	■	■	■	■	■	■	■	■	■	■	■
32	■	■	■	■	■	■	■	■	■	■	■	■	■	■
40	■	■	■	■	■	■	■	■	■	■	■	■	■	■
50	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■

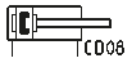
<p>Foot mount Mod. B</p> 	<p>Foot mount Mod. B</p> 	<p>Threaded trunnion pin Mod. T</p> 	<p>Rear trunnion bracket Mod. I (Ø 20, 25, 32, 40)</p> 	<p>Rear trunnion bracket Mod. I (Ø 50 - 63)</p> 	<p>Rod fork end Mod. G</p> 
<p>Swivel ball joint Mod. GA</p> 	<p>Piston rod socket joint Mod. GY</p> 	<p>Piston rod lock nut Mod. U</p> 	<p>Nose nut Mod. V</p> 	<p>Self aligning rod Mod. GK</p> 	<p>Coupling piece Mod. GKF</p> 

CODING EXAMPLE

27	M	2	A	20	A	0050
27	SERIES					
M	VERSION M = rear endblock with trunnion and upper round port for \varnothing 20-25-32-40 T = rear endblock with rear round port for \varnothing 20-25-32-40 U = rear endblock with upper round port for \varnothing 20-25-32-40-50-63					
2	OPERATION 2 = double-acting				PNEUMATIC SYMBOL CD08	
A	MATERIALS A = rolled stainless steel rod - stainless steel tube					
20	BORE 20 = 20 mm 25 = 25 mm 32 = 32 mm 40 = 40 mm 50 = 50 mm 63 = 63 mm					
A	TYPE OF DESIGN A = standard					
0050	STROKE (see the standard strokes table)					

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Cylinders Series 42

Single and double-acting, magnetic, cushioned
Ø 32, 40, 50, 63



STANDARD STROKES

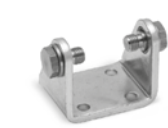
✕ = Double acting ■ = Single acting

Ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	✕ ■	✕ ■	✕ ■	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

Foot mount
Mod. P



Trunnion
Mod. I



Bracket with
threaded pins Mod. T



Nose nut
Mod. V-42



Rod fork end
Mod. G



Piston rod lock
Mod. U



Swivel ball joint
Mod. GA



Piston rod socket
joint Mod. GY



Self aligning rod
Mod. GK



Coupling piece
Mod. GKF



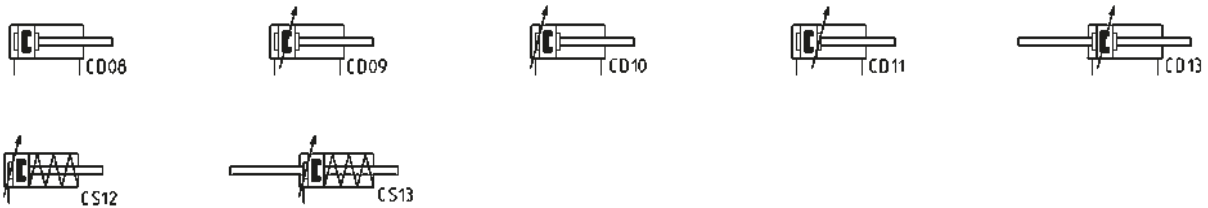
CODING EXAMPLE

42	M	2	N	050	A	0200
42	SERIES					
M	VERSION M= standard magnetic					
2	OPERATION 1 = single-acting, cushions (front spring) 2 = double-acting, front and rear cushions 3 = double-acting, no cushion 4 = double-acting, rear cushions 5 = double-acting, front cushion 6 = double-acting, through-rod, front and rear cushions 7 = single-acting, through-rod, cushions			PNEUMATIC SYMBOLS CS12 CD09 CD08 CD10 CD11 CD13 CS13		
N	MATERIALS N = stainless steel AISI 420B rod - stainless steel AISI 304 tube - NBR seals					
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm					
A	TYPE OF DESIGN A = standard with nose nut Mod. V and piston rod lock nut Mod. U					
0200	STROKE (see the standard strokes table)					

PNEUMATIC ACTUATION
1

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rotary cylinders Series 69

Magnetic, cushioned
Ø 32, 40, 50, 63, 80, 100, 125 mm
Rotational angles: 90°, 180°, 270° and 360°

PNEUMATIC ACTUATION

1



- » Male or female version
- » Clean design

TABLE OF TORQUE FORCE IN Nm (THEORETICAL)

Ø	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
32	1,2	2,4	3,6	4,8	6	7,2	8,4	9,6	10,8	12
40	2,25	4,5	6,75	9	11,25	13,5	15,75	18	20,25	22,5
50	3,9	7,8	11,7	15,6	19,5	23,4	27,3	31,2	35,1	39
63	7,3	14,6	21,9	29,2	36,5	43,8	51,1	58,4	65,7	73
80	15,7	31,4	47,1	62,8	78,5	94,2	109,9	125,6	141,3	157
100	26,35	52,7	79,05	105,4	131,75	158,1	184,45	210,8	237,15	263,5
125	51	102	153	204	255	306	357	408	459	510

CODING EXAMPLE

69	-	050	/	090	-	F	
69	SERIES			PNEUMATIC SYMBOL CD18			
050	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm						
090	ROTATIONAL ANGLES 090 = 90° 180 = 180° 270 = 270° 360 = 360°						
F	PINION F = Female M = Male						
SEALS MATERIAL = NBR W = FKM + 130°C							

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rotary cylinders Series 30

Non magnetic, cushioned and not cushioned
 Ø 50, 63, 80, 100 mm
 Rotational angles: 90° and 180°



TABLE OF TORQUE FORCE IN Nm (THEORETICAL)

Ø	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
50	2,08	4,16	6,24	8,32	10,40	12,48	14,55	16,63	18,71	20,79
63	4,40	8,80	13,20	17,61	22,01	26,41	30,81	35,21	39,61	44,01
80	7,10	14,19	21,29	28,39	35,49	42,58	49,68	56,78	63,87	70,97
100	16,63	33,27	49,90	66,54	83,17	99,80	116,44	133,07	149,70	166,34

CODING EXAMPLE

30	-	050	/	090	-	3
30	SERIES			PNEUMATIC SYMBOL CD17		
050	BORE 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm					
090	ROTATIONAL ANGLES 090 = 90° 180 = 180°					
3	VERSION = cushioned 3 = not cushioned					

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rotary actuators Series ARP

Model: "Rack & Pinion"
 Sizes: 1, 3, 5, 10, 12, 20, 35, 55, 70, 100, 150, 250, 400
 Rotational angles: 90°



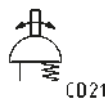
CODING EXAMPLE

ARP	-	003	-	1A	A	-	F0300	-	A	EX
------------	---	------------	---	-----------	----------	---	--------------	---	----------	-----------

ARP	SERIES
003	<p>SIZE</p> <p>001 = torque force 9 Nm (only double effect)</p> <p>003 = torque force 24 Nm</p> <p>005 = torque force 50 Nm</p> <p>010 = torque force 100 Nm</p> <p>012 = torque force 120 Nm</p> <p>020 = torque force 200 Nm</p> <p>035 = torque force 370 Nm</p> <p>055 = torque force 597 Nm</p> <p>070 = torque force 825 Nm</p> <p>100 = torque force 1122 Nm</p> <p>150 = torque force 1655 Nm</p> <p>250 = torque force 2648 Nm</p> <p>400 = torque force 4800 Nm</p>
1A	<p>OPERATION</p> <p>1A = single-acting, minimum pressure of 4 bar</p> <p>1B = single-acting, minimum pressure of 5 bar</p> <p>1C = single-acting, minimum pressure of 5,5 bar</p> <p>1D = single-acting, minimum pressure of 6 bar</p> <p>2A = double-acting</p> <p>PNEUMATIC SYMBOLS</p> <p>CD19 / CD21</p> <p>CD19 / CD21</p> <p>CD19 / CD21</p> <p>CD19 / CD21</p> <p>CD17</p>
A	<p>ROTATION ANGLE</p> <p>A = 90°</p>
F0300	<p>INTERFACE FOR FLANGE (ISO 5211)</p> <p>F0300 = F03 flange and 9mm square holes</p> <p>F0305 = F03 flange holes + F05 flange and 9mm square holes</p> <p>F0400 = F04 flange and 11mm square holes</p> <p>F0507 = F05 flange holes + F07 flange and 14mm square holes</p> <p>F0705 = F07 flange holes + F05 flange and 17mm square holes</p> <p>F0710 = F07 flange holes + F10 flange and 17mm square holes</p> <p>F1007 = F10 flange holes + F07 flange and 22mm square holes</p> <p>F1210 = F12 flange holes + F10 flange and 27mm square holes</p> <p>F1400 = F14 flange and 36mm square holes</p> <p>F1600 = F16 flange and 46mm square holes</p> <p>F2516 = F25 flange + F16 flange and 55mm square holes</p>
A	<p>MATERIALS</p> <p>A = standard anodized</p> <p>C = CNI Kanigen type nickel-plating</p> <p>W = all FKM seals (130°C)</p>
EX	ATEX certified product

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rotary actuators with rack and pinion system Series QR

Magnetic, cushioned
7, 10, 20, 30, 50 mm
Rotation angles: 0 - 190°



CODING EXAMPLE

QR	20	A
QR	SERIES	PNEUMATIC SYMBOL CD18
20	SIZE 07 10 20 30 50	
A	TYPE OF CUSHIONING A = Mechanical stop S = Shock absorber	

PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rodless cylinders Series 50

Double-acting, magnetic, cushioned
Ø 16, 25, 32, 40, 50, 63, 80 mm



CODING EXAMPLE

50	M	2	P	50	A	0500
50	SERIES					
M	VERSION M = standard magnetic					
2	OPERATION 2 = double-acting cushioned				PNEUMATIC SYMBOL CDSS	
P	MATERIALS P = anodized AL profile tube - PU and NBR seals - standard carriage U = anodized AL profile tube - PU and NBR seals - flanged carriage					
50	BORE 16 = 16 mm 25 = 25 mm 32 = 32 mm 40 = 40 mm 50 = 50 mm 63 = 63 mm 80 = 80 mm					
A	TYPE OF MOUNTING A = standard					
0500	STROKE for all diameters 100 ÷ 4000 mm					

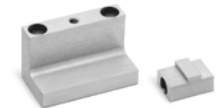
Foot mount Mod. B-50

Mod.
B-50-16
B-50-25
B-50-32
B-50-40
B-50-50
B-50-63
B-50-80



Brackets Mod. BH-50

Mod.
BH-50-16
BH-50-25
BH-50-32
BH-50-40
BH-50-50
BH-50-63
BH-50-80



Self-compensating adaptor Mod. CF-50

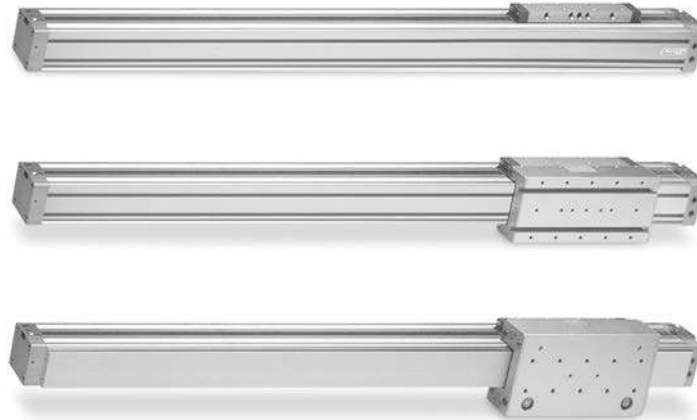
Mod.
CF-50-25
CF-50-32
CF-50-40
CF-50-50
CF-50-63
CF-50-80



Rodless cylinders

Series 52

Double-acting, magnetic, cushioned
 Ø 25, 32, 40, 50, 63 mm



CODING EXAMPLE

52	M	2	P	40	A	0500
52	SERIES					
M	VERSION M = standard G = with slide bearing R = with roller bearing (only Ø25 - 32 - 40)					
2	OPERATION 2 = double-acting, cushioned, with air supply from both sides 8 = double-acting, cushioned, with air supply from one side only			PNEUMATIC SYMBOLS CDSS CDSS		
P	MATERIALS P = anodized AL profile tube, NBR and PU seals, standard carriage C = anodized AL profile, NBR and PU seals, short carriage					
40	BORE 25 = 25 mm 32 = 32 mm 40 = 40 mm 50 = 50 mm 63 = 63 mm					
A	TYPE OF MOUNTING A = standard					
0500	STROKE Up to 6000 mm					

Foot mount Mod. B-52

Mod.
 B-52-25
 B-52-32
 B-52-40
 B-52-50
 B-52-63



Foot mount Mod. BA-52

Mod.
 BA-52-25
 BA-52-32
 BA-52-40
 BA-52-50
 BA-52-63



Intermediate brackets Mod. BH and BL 52-32

Mod.
 BH-52-25
 BH-52-32
 BH-52-40
 BH-52-50
 BH-52-63



Self-compensating adaptor Mod. CF-52

Mod.
 CF-52-25-32
 CF-52-25-32
 CF-52-40
 CF-52-50-63
 CF-52-50-63



Magnetic proximity switches

Series CST-CSV, CSB-CSC-CSD, CSG

Reed Magnetoresistive - Hall effect (Series CST, CSV, CSH only)

Magnetic proximity switches with 2- or 3-wire cable for T-slot

Mod.		
CST-220	CST-220-5EX	CST-232EX
CST-220-5	CST-220-12EX	CST-232-5EX
CST-220-12	CST-232	CST-332
CST-220EX	CST-232-5	



Magnetic proximity switches with 2- or 3-wire cable for V-slot

Mod.
CSV-220
CSV-232
CSV-332



Magnetic proximity switches with M8 3-pin connector for T-slot

Mod.	
CST-250N	CST-362
CST-250NEX	CST-362EX
CST-262	CST-562
CST-262EX	CST-562EX



Magnetic proximity switches with M8 3-pin connector for V-slot

Mod.
CSV-250N
CSV-262
CSV-362



Magnetic proximity switches with 2- or 3-wire cable for H-slot

Mod.		
CSH-223-2	CSH-223-5EX	CSH-221-2EX
CSH-223-5	CSH-223-10EX	CSH-221-5EX
CSH-223-10	CSH-221-2	CSH-233-2
CSH-223-2EX	CSH-221-5	



Magnetic proximity switches with M8 3-pin connector for H-slot

Mod.	
CSH-253	CSH-364
CSH-253EX	CSH-364EX
CSH-263	CSH-463
CSH-263EX	CSH-463EX



Magnetic proximity switch with 2-wire cable for B-slot

Mod.
CSB-D-220



Magnetic proximity switch with 2-wire 90° cable for B-slot

Mod.
CSB-H-220



Magnetic proximity switch with 2-wire cable for C-slot

Mod.
CSC-D-220



Magnetic proximity switch with 2-wire 90° cable for C-slot

Mod.
CSC-H-220



Magnetic proximity switches, 3-wire cable, D-slot

Mod.
CSD-D-334
CSD-D-334-5



Magnetic proximity switches, 3-wire cable, D-slot with 90° cable

Mod.
CSD-H-334
CSD-H-334-5



Magnetic proximity switches, male M8 3-pin conn., D-slot, straight

Mod.
CSD-D-364



Magnetic proximity switches, male M8 3-pin conn., D-slot, 90°

Mod.
CSD-H-364



Magnetic proximity switches, ATEX "II 3 GD" certified, T-slot, straight

Mod.		
CSG-223-2-EX	CSG-324-5-EX	CSG-734-2-EX
CSG-223-5-EX	CSG-334-2-EX	CSG-734-5-EX
CSG-233-2-EX	CSG-334-5-EX	CSG-634-2-EX
CSG-233-5-EX	CSG-534-2-EX	CSG-634-5-EX
CSG-324-2-EX	CSG-534-5-EX	



Magnetic proximity switches, UL certified, T-slot, straight

Mod.		
CSG-223-2-UL	CSG-233-5-UL	CSG-334-2-UL
CSG-223-5-UL	CSG-233-10-UL	CSG-334-5-UL
CSG-223-10-UL	CSG-324-2-UL	CSG-534-2-UL
CSG-233-2-UL	CSG-324-5-UL	



SERIES CST, CSV, CSH CODING EXAMPLE

CS	T	-	2	2	0	N	-	5	EX
CS	SERIES								
T	TYPE OF SLOT T = T-slot - V = V-slot - H = H-slot								
2	OPERATION 2 = Reed NO - 3 = Magnetoresistive - 4 = Reed NC - 5 = Hall effect								
2	CONNECTIONS 2 = 2 wires (Reed only) 3 = 3 wires 5 = 2 wires with M8 connector (Reed only) 6 = 3 wires with M8 connector								
0	POWER SUPPLY VOLTAGE 0 = 10 ÷ 110 V DC; 10 ÷ 230 V AC (PNP) 1 = 30 ÷ 110 V DC; 30 ÷ 230 V AC (PNP) 2 = 3 wires cst (PNP) 3 = 10 ÷ 30 V AC/DC (PNP) 4 = 10 ÷ 27 V DC (PNP)								
N	NOTE (CST/CSV-250N only) N = according to norm								
5	LENGTH OF THE CABLE = 2m (CST and CSV only) 2 = 2m (CSH only) 5 = 5m								
EX	ATEX certification - Category 3 Zone 2/22 G / D								

SERIES CSB, CSC, CSD CODING EXAMPLE

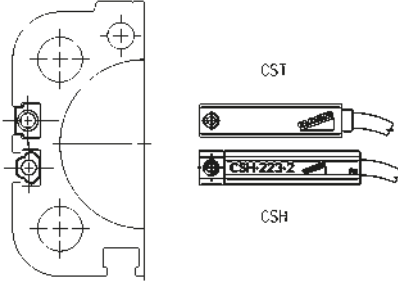
CS	B	-	D	-	2	2	0	-	
CS	SERIES								
B	TYPE OF SLOT B = B-slot - C = C-slot - D = D-slot								
D	CABLE OUTPUT D = straight H = 90°								
2	OPERATION 2 = Reed NC (CSB, CSC only) - 3 = Magnetoresistive (CSD only)								
2	CONNECTIONS 2 = 2 wires (CSB, CSC only) 3 = 3 wires (CSD only) 6 = 3 wires with M8 connector (CSD only)								
0	POWER SUPPLY VOLTAGE 0 = 10 ÷ 110 V DC/AC (CSB, CSC only) 4 = 10 ÷ 27 V DC PNP (CSD only)								
	LENGTH OF THE CABLE = 2m (standard) 5 = 5m								

SERIES CSG CODING EXAMPLE

CS	G	-	2	2	3	-	2	-	UL
CS	SERIES								
G	TYPE OF SLOT G = T-slot								
2	OPERATION 2 = Reed Normally Open - 3 = Magnetoresistive PNP - 5 = Magnetoresistive NPN - 6 = Magnetoresistive PNP Normally Closed - 7 = Magnetoresistive NPN Normally Closed								
2	CONNECTIONS 2 = 2 wires 3 = 3 wires								
3	POWER SUPPLY VOLTAGE 3 = 5/10 ÷ 30 V AC/DC (PNP) 4 = 10 ÷ 28 V DC (PNP)								
2	LENGTH OF THE CABLE 2 = 2m 5 = 5m 10 = 10 m								
UL	CERTIFICATION EX = ATEX certification UL = UL certification								

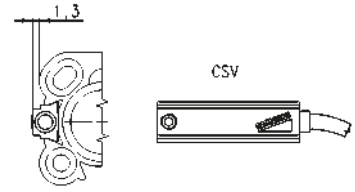
Mounting of Series CST - CSH - CSG sensors

CST/CSH/CSG sensors can be directly mounted on cylinders:
Series 31, 31R, 32, 32R
Series 52
Series 61
Series 63 (CSH only)
Series 69
Series 6PF
Series QC, QCBF, QCTF



Mounting of Series CSV sensors

CSV sensors must be assembled directly into the groove of cylinders:
Series 50 \varnothing 16÷25
Series QP - QPR \varnothing 12÷16



3-wire extension with M8 3-pin female connector

With PU sheathing, non shielded cable.
Protection class: IP65
1 BN = Brown
4 BK = Black
3 BU = Blue

In case 2-wire sensors with M8 connector (Mod. CST-250N, CSV-250N, CSH-253) are used, please connect the brown wire to the supply (+) and the black wire to the load.



Mod.	L = cable length (m)
CS-2	2
CS-5	5
CS-10	10

3-wire extension with M8 3-pin male / female connector

Non shielded



Mod.	L = cable length (m)
CS-DW03HB-C250	2,5
CS-DW03HB-C500	5

Adapters Mod. S-CST-01 for Series CST-CSH-CSG sensors, V-slot



Mod.	Series QP-QPR cylinders	Series 50 cylinders
S-CST-01	\varnothing 20 ÷ 100	\varnothing 32 ÷ 80

Adapters Mod. S-CST-02...21 for Series CST-CSH-CSG sensors

Materials:
- stainless steel and technopolymer (S-CST-05÷12)*
- technopolymer (S-CST-02÷04)
- technopolymer (S-CST-18÷21)

* Not suitable for use with Series CSG sensors



Mod.	Cylinders Series	\varnothing
S-CST-02	24, 25, 27	16
S-CST-03	24, 25, 27	20
S-CST-04	24, 25, 27	25
S-CST-05	94, 95	16-20-25 (94), 16-20 (95)
S-CST-06	90, 97, 95	32 (90-97), 25 (95)
S-CST-07	90, 97	40
S-CST-08	90, 97	50
S-CST-09	90, 97	63
S-CST-10	90	80
S-CST-11	90	100
S-CST-12	90	125
S-CST-18	27, 42	32
S-CST-19	27, 42	40
S-CST-20	27, 42	50
S-CST-21	27, 42	63
S-CST-16	63	32

Adapters Mod. S-CST-25...28 for Series CST-CSH-CSG sensors

Material: anodized aluminium



Mod.	Cylinders Series	\varnothing
S-CST-25	90, 63MT	32 ÷ 63
S-CST-26	90, 63MT	80 ÷ 100
S-CST-27	90, 63MT	125
S-CST-28	40	160 - 200

Adapters for Series CST-CSH-CSG sensors

For Series 63MT cylinders mounted with guides 45NHT or 45NHB. S-CST-45N1 is not suitable for use with Series CSG sensors.



Mod.	Cylinders Series	\varnothing
S-CST-45N1	90, 63MT	32 ÷ 63
S-CST-45N2	90, 63MT	80 ÷ 100

Slot cover profile suitable for actuators with T- and H-slot

Supplied with 500 mm tube



Mod.	Series of cylinders
S-CST-500	31, 31 Tandem and Multi-position, QCT, QCB, QCBT, QCBF, 61, 63MP, 6E, 5E, 69, 32, 32 Tandem and Multi-position

Proximity switches Series CSN

Reed switch



Mod.	for cylinders Series 40 - \varnothing 160 ÷ 200	for cylinders Series 40 - \varnothing 250 ÷ 320	for cylinders Series 41 - \varnothing 160 ÷ 200
CSN 2032-0	mounting band to be ordered separately	direct mounting	mounting band to be ordered separately

Mounting bracket for sensor

Mod.	
S21	for cylinders Series 40 \varnothing 160 and 200
S53	for cylinders Series 41 \varnothing 160 and 200

Table 1: mounting of sensors on cylinders

Series	∅	CST - CSH	CSV	CSN
23- 24 - 25	16	S-CST-02		
	20	S-CST-03		
	25	S-CST-04		
27	20	S-CST-03		
	25	S-CST-04		
	32	S-CST-18		
	40	S-CST-19		
	50	S-CST-20		
31	63	S-CST-21		
	12	Direct mounting		
	16	Direct mounting		
	20	Direct mounting		
	25	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
	50	Direct mounting		
	63	Direct mounting		
	80	Direct mounting		
32	100	Direct mounting		
	12	Direct mounting		
	16	Direct mounting		
	20	Direct mounting		
	25	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
	50	Direct mounting		
	63	Direct mounting		
	80	Direct mounting		
	100	Direct mounting		
40K	125	Direct mounting		
	160	S-CST-28		S21
	200	S-CST-28		S21
	250			Direct mounting
41K	320			Direct mounting
	160			S53
42	200			S53
	32	S-CST-18		
	40	S-CST-19		
	50	S-CST-20		
	63	S-CST-21		
50	16		Direct mounting	
	25		Direct mounting	
	32	S-CST-01		
	40	S-CST-01		
	50	S-CST-01		
	63	S-CST-01		
	80	S-CST-01		
	100	S-CST-01		
52	25	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
	50	Direct mounting		
	63	Direct mounting		
45N	32	S-CST-45N1		
	40	S-CST-45N1		
	50	S-CST-45N1		
	63	S-CST-45N1		
	80	S-CST-45N2		
100	S-CST-45N2			

Table 2: mounting of sensors on cylinders

Series	Ø	CST - CSH
61	32	Direct mounting
	40	Direct mounting
	50	Direct mounting
	63	Direct mounting
	80	Direct mounting
	100	Direct mounting
63...P	32	Direct mounting (CSH only)
	40	Direct mounting (CSH only)
	50	Direct mounting (CSH only)
	63	Direct mounting (CSH only)
	80	Direct mounting (CSH only)
	100	Direct mounting (CSH only)
63...T	32	S-CST-25
	40	S-CST-25
	50	S-CST-25
	63	S-CST-25
	80	S-CST-26
	100	S-CST-26
69	125	S-CST-27
	32	Direct mounting
	40	Direct mounting
	50	Direct mounting
	63	Direct mounting
	80	Direct mounting
6PF	100	Direct mounting
	125	Direct mounting
	32	S-CST-06
	40	S-CST-07
	50	S-CST-08
	63	S-CST-09
90	80	S-CST-10
	100	S-CST-11
	125	S-CST-12
	16	S-CST-05
	20	S-CST-05
	25	S-CST-05
95	16	S-CST-05
	20	S-CST-05
	25	S-CST-06
97	32	S-CST-06
	40	S-CST-07
	50	S-CST-08
	63	S-CST-09

Table 3: mounting of sensors on cylinders

Series	∅	CST - CSH	CSV	CSC-D / CSC-H
QC	20	Direct mounting		
	25	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
	50	Direct mounting		
QCBF	20	Direct mounting		
	25	Direct mounting		
	32	Direct mounting		
QCTF	20	Direct mounting		
	25	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
QL	12			Direct mounting
	16			Direct mounting
	20			Direct mounting
	25			Direct mounting
	32			Direct mounting
	40			Direct mounting
	50			Direct mounting
QP - QPR	12		Direct mounting	
	16		Direct mounting	
	20	S-CST-01		
	25	S-CST-01		
	32	S-CST-01		
	40	S-CST-01		
	50	S-CST-01		
	63	S-CST-01		
	80	S-CST-01		
	100	S-CST-01		
QX	10			Direct mounting
	16			Direct mounting
	20			Direct mounting
	25			Direct mounting
	32			Direct mounting
ST	20	Direct mounting		
	32	Direct mounting		
	40	Direct mounting		
	50	Direct mounting		

Table 4: mounting of sensors on grippers, electromechanical axis/cylinders

* Further details about Series 5E electromechanical axis and Series 6E electromechanical cylinders can be found in the Electric actuation catalogue.

Series	Ø	CST - CSH	CSB-D / CSB-H	CSC-D / CSC-H	CSD-D / CSD-H
Grippers					
CGAN	10				Direct mounting
	16				Direct mounting
	20				Direct mounting
	25				Direct mounting
	32				Direct mounting
CGLN	10			Direct mounting	
	16			Direct mounting	
	20			Direct mounting	
	25			Direct mounting	
	32			Direct mounting	
CGPS	10				Direct mounting
	16				Direct mounting
	20				Direct mounting
	25				Direct mounting
	32				Direct mounting
CGSP	20				Direct mounting
	25				Direct mounting
	32				Direct mounting
	40				Direct mounting
CGPT	16				Direct mounting
	20				Direct mounting
	25				Direct mounting
	32				Direct mounting
CGSN	16			Direct mounting	Direct mounting
	20			Direct mounting	Direct mounting
	25			Direct mounting	Direct mounting
	32			Direct mounting	Direct mounting
CGSY	10				Direct mounting
	16				Direct mounting
	20				Direct mounting
	25				Direct mounting
RPGB	8				Direct mounting
	12				Direct mounting
RPGA	20				Direct mounting
	30				Direct mounting
Electromechanical axis *					
5E	50	Direct mounting (CSH only)			
	65	Direct mounting (CSH only)			
	80	Direct mounting (CSH only)			
5V	50	Direct mounting			
	60	Direct mounting			
	80	Direct mounting			
Electromechanical cylinders *					
6E	32	Direct mounting			
	40	Direct mounting			
	50	Direct mounting			
	63	Direct mounting			
3E	20				Direct mounting
	32				Direct mounting
Tools changer					
RTC	90				Direct mounting
	150				Direct mounting

Hydrochecks Series 43

Bore \varnothing 40 mm
Regulated thrust or return stroke. Skip-Stop function

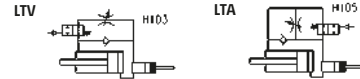
Mod. 43N-LT0-40

Mod.
43N-LT0-40-050
43N-LT0-40-100
43N-LT0-40-150
43N-LT0-40-200



Mod. 43N-LTA-40 and 43N-LTV-40

Mod.
43N-LTA-40-050
43N-LTA-40-100
43N-LTA-40-150
43N-LTA-40-200
43N-LTV-40-050
43N-LTV-40-100
43N-LTV-40-150
43N-LTV-40-200



Mod. 43N-LTB-40

Mod.
43N-LTB-40-050
43N-LTB-40-100
43N-LTB-40-150
43N-LTB-40-200



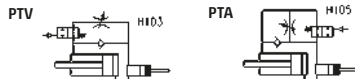
Mod. 43N-PT0-40

Mod.
43N-PT0-40-050
43N-PT0-40-100
43N-PT0-40-150
43N-PT0-40-200
43N-PT0-40-1000



Mod. 43N-PTA-40 and 43N-PTV-40

Mod.
43N-PTA-40-050
43N-PTA-40-100
43N-PTA-40-150
43N-PTA-40-200
43N-PTV-40-050
43N-PTV-40-100
43N-PTV-40-150
43N-PTV-40-200



Mod. 43N-PTB-40

Mod.
43N-PTB-40-050
43N-PTB-40-100
43N-PTB-40-150
43N-PTB-40-200



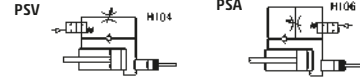
Mod. 43N-PS0-40

Mod.
43N-PS0-40-050
43N-PS0-40-100
43N-PS0-40-150
43N-PS0-40-200



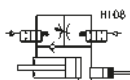
Mod. 43N-PSA-40 and 43N-PSV-40

Mod.
43N-PSA-40-050
43N-PSV-40-050
43N-PSA-40-100
43N-PSV-40-100
43N-PSA-40-150
43N-PSV-40-150
43N-PSA-40-200
43N-PSV-40-200



Mod. 43N-PSB-40

Mod.
43N-PSB-40-100
43N-PSB-40-150
43N-PSB-40-200



CODING EXAMPLE

43	N	-	P	S	0	-	40	-	200
43	SERIES								
N	VERSION N = standard S = special								
P	TANK POSITION L = tank in series P = tank parallel D = double valve, tank parallel								
S	REGULATION S = thrust (hydrocheck's rod return regulated) T = traction (hydrocheck's rod thrust regulated)								
0	OPERATION A = SKIP valve B = SKIP + STOP valve * V = STOP valve 0 = standard								
40	BORE 40mm								
200	STROKE in mm								

* = minimum stroke 80mm

Connecting kit Mod. 43N-40

Hydrocheck connecting kit to suit cylinders \varnothing 40 - 50 - 63 - 80 mm
Material: phosphated steel



Mod.
43N-40-40
43N-40-50
43N-40-63
43N-40-80

Hydrocheck refilling pump Mod. 43N-PMP

Pump for refilling hydrocheck speed regulator



Mod.
43N-PMP

Rod lock Series RL

For cylinders ISO 15552 and ISO 6432
Ø 20, 25, 32, 40, 50, 63, 80, 100, 125 mm



CODING EXAMPLE

RLC	-	41	-	32
RLC	SERIES RLC = standard, complete with cartridge and housing RLB = cartridge only			
41	CYLINDER SERIES 24 = for Series 24 and 25 41 = for Series 61 and 63		PNEUMATIC SYMBOL RDLK	
32	CYLINDER DIAMETER (mm) 20 = 20 mm 25 = 25 mm 32 = 32 mm 40 = 40 mm 50 = 50 mm 63 = 63 mm 80 = 80 mm 100 = 100 mm 125 = 125 mm			

PNEUMATIC SYMBOLS

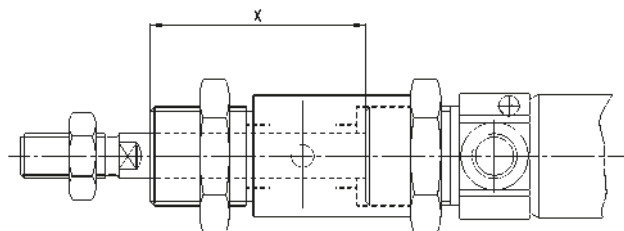
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



Rod extension and holding force

Table showing the rod extensions which are necessary for the rod lock mounting.

Ø	Rod extension [X] (mm)	Holding force [static load] (N)
20	+50	300
25	+48	400
32	+40	650
40	+43	1100
50	+57	1600
63	+57	2500
80	+80	4000
100	+80	6500
125	+125	8800



Shock absorber Series SA

7 different sizes

Threads: M8x1 - M10x1 - M12x1 - M14x1,5 - M20x1,5 - M25x1,5 - M27x1,5

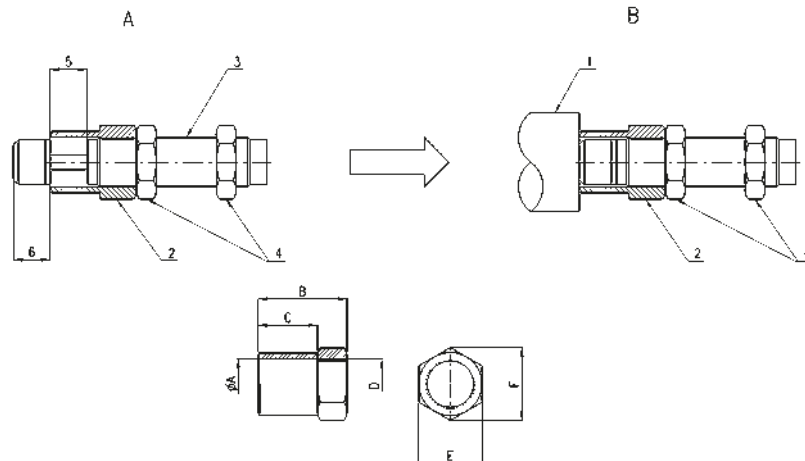


CODING EXAMPLE

SA	-	2015	
SA	SERIES		
0806	SIZE/STROKE 0806 = Size M8 x 1 / Stroke 6 mm 1007 = Size M10 x 1 / Stroke 7 mm 1210 = Size M12 x 1 / Stroke 10 mm 1412 = Size M14 x 1,5 / Stroke 12 mm 2015 = Size M20 x 1,5 / Stroke 15 mm 2525 = Size M25 x 1,5 / Stroke 25 mm 2725 = Size M27 x 1,5 / Stroke 25 mm		
	VERSION = standard, with cap W = Without cap (on request)		

Adjusted stroke nut

- A = Initial position
- B = Final position
- 1 = Impact object
- 2 = Adjusted stroke nut
- 3 = Shock absorber
- 4 = Fixing screw
- 5 = Stroke
- 6 = Stroke length



Mod.		Ø A	B	C	D	E	F
SA-085C	(for SA-0806)	10.5	14	9	M8X1	11	12.7
SA-105C	(for SA-1007)	12	16	10	M10X1	13	14.7
SA-125C	(for SA-1210)	14.5	20	13	M12X1	16	18.5
SA-145C	(for SA-1412)	14.5	27	15	M14X1	19	21.9
SA-205C	(for SA-2015)	27.8	35	20	M20X1.5	26	30
SA-255C	(for SA-2525)	5.8	45	30	M25X1.5	32	37
SA-275C	(for SA-2725)	20.7	65	50	M27X1.5	32	37

Electromechanical cylinders Series 6E

Sizes 32, 40, 50, 63, 80, 100

ELECTRIC ACTUATION

2



- » In compliance with the ISO 15552 standard
- » Multi-position system with transmission of the movement by means of a recirculating ball screw
- » Possibility to connect the motor in line or parallel
- » Large range of motor interfaces
- » Permanent pre-lubrication (maintenance free)
- » High positioning repeatability
- » Reduced axial backlash
- » Possibility to use magnetic sensors
- » Integrated anti-rotation system of the rod
- » IP40 / IP65
- » Wide range of fixing accessories

STANDARD STROKES

Intermediate strokes are available upon request.

Size	100	200	300	400	500	600	700	800	1000	1200	1500
32	x	x	x	x	x						
40	x	x	x	x	x	x	x				
50	x	x	x	x	x	x		x	x		
63	x	x	x	x	x			x	x	x	
80	x	x	x	x	x			x	x	x	x
100	x	x	x	x	x			x	x	x	x

CODING EXAMPLE

6E	032	BS	0200	P05	A	
-----------	------------	-----------	-------------	------------	----------	--

6E	SERIES
032	SIZE: 032 = 32 040 = 40 050 = 50 063 = 63 080 = 80 100 = 100
BS	DESIGN: BS = recirculating ball screw
0200	STROKE: 100 ÷ 1500 mm
P05	SCREW PITCH: P05 = 5 mm P10 = 10 mm P16 = 16 mm (for size 40 only) P20 = 20 mm (for size 50 only) P25 = 25 mm (for size 63 only) P32 = 32 mm (for size 80 only) P40 = 40 mm (for size 100 only)
A	CONSTRUCTION: A = standard with rod nut
	VERSION: = IP40 (not available for sizes 80 and 100) P = IP65 (___) = extended piston rod ___ mm

Housing for axial connection Mod. CM

Material: anodized aluminium
 Supplied with:
 1x housing
 4x screws



Mod.
 CM-6E-32
 CM-6E-40
 CM-6E-50
 CM-6E-63

Flange for axial connection Mod. FM

Material: anodized aluminium
 Supplied with:
 1x flange
 1x flexible coupling
 4x screws



Mod.
 FM-6E-32-0100
 FM-6E-32-0023
 FM-6E-40-0400
 FM-6E-40-0023
 FM-6E-50-0400
 FM-6E-50-0024
 FM-6E-63-0750
 FM-6E-63-0024

Kit for axial connection Mod. AM

Supplied with:
 1x housing, 1x flange,
 1x flexible coupling,
 4x screws to connect on the
 cylinder's side,
 4x screws to connect on the
 motor's side,
 3x seals, 4x seal washers

Mod.
 AM-6E-32-0100 AM-6E-50-0024
 AM-6E-32-0100P AM-6E-50-0024P
 AM-6E-32-0023 AM-6E-50-0034P
 AM-6E-32-0023P AM-6E-63-0750
 AM-6E-32-0024P AM-6E-63-0750P
 AM-6E-40-0400 AM-6E-63-0024
 AM-6E-40-0400P AM-6E-63-0024P
 AM-6E-40-0023 AM-6E-63-0034P
 AM-6E-40-0023P AM-6E-80-1000P
 AM-6E-40-0024P AM-6E-80-0034P
 AM-6E-50-0400 AM-6E-100-1000P
 AM-6E-50-0400P AM-6E-100-0034P
 AM-6E-50-0750P

**Kit for axial connection Mod. AR**

Supplied with:
 2x flanges (1 for size 80)
 8x screws
 1x coupling
 2x seals (1 for size 80)

Mod.
 AR-6E-50-R060P
 AR-6E-63-R060P
 AR-6E-80-R080P
 AR-6E-100-R120P

**Kit for parallel connection Mod. PM**

The kit includes:
 1x front cover
 1x rear cover
 2x pulleys
 2x locking sets
 1x toothed belt
 1x belt traction unit
 4x screws for cylinder's side
 4x cover rear screws
 + seal washers
 6x cover fixing screws
 3x seals
 1x seal plug
 4x motor seal washers



Mod.
 PM-6E-32-0100P PM-6E-63-0034P
 PM-6E-32-0024P PM-6E-63-R060P
 PM-6E-40-0400P PM-6E-80-1000P
 PM-6E-40-0024P PM-6E-80-0034P
 PM-6E-50-0400P PM-6E-80-R080P
 PM-6E-50-0034P PM-6E-100-1000P
 PM-6E-50-R060P PM-6E-100-0034P
 PM-6E-63-0750P PM-6E-100-R080P

Cylinder bracket Mod. BA-6E

Supplied with:
 2x feet
 8x centering rings
 8x screws



Mod.
 BA-6E-80
 BA-6E-100

Foot bracket Mod. B-6E

Material: zinc-plated steel
 Supplied with:
 2x feet
 8x screws



Mod.
 B-6E-32
 B-6E-40
 B-6E-50
 B-6E-63
 B-6E-80
 B-6E-100

Front spot faced trunnion Mod. FN

Material: zinc-plated steel
 Supplied with:
 1x spot faced trunnion
 4x screws



Mod.
 FN-32
 FN-40
 FN-50
 FN-63
 FN-6E-80
 FN-6E-100

Counter bracket for front trunnion Mod. BF

Material: aluminium
 Supplied with:
 2x supports



Mod.
 BF-32
 BF-40-50
 BF-63-80
 BF-100-125

Front flange Mod. D-E

Material: aluminium
 Supplied with:
 1x flange
 4x screws



Mod.
 D-E-41-32
 D-E-41-40
 D-E-41-50
 D-E-41-63
 D-E-6E-80
 D-E-6E-100

Side clamping bracket Mod. BG

Material: aluminium
Supplied with:
2x clamps



Mod.
BG-6E-32
BG-6E-40
BG-6E-50
BG-6E-63
BG-6E-80
BG-6E-100

Rear male trunnion Mod. L

Material: aluminium
Supplied with:
1x male trunnion
4x screws



Mod.
L-41-32
L-41-40
L-41-50
L-41-63
L-41-80
L-41-100

Rear female trunnion Mod. C and C-H

Material: aluminium
Supplied with:
1x female trunnion
4x screws



Mod.
C-41-32
C-41-40
C-41-50
C-H-41-63
C-H-41-80
C-H-41-100

Accessory combination Mod. C+L+S

Material: aluminium



Mod.
C+L+S-32
C+L+S-40
C+L+S-50
C+L+S-63
C+L+S-80
C+L+S-100

90° male trunnion Mod. ZC

CETOP RP 107P
Material: aluminium
Supplied with:
1x male support



Mod.
ZC-32
ZC-40
ZC-50
ZC-63
ZC-80
ZC-100

Trunnion ball-joint Mod. R

This trunnion doesn't comply with the ISO 15552 standard
Material: aluminium
Supplied with:
1x trunnion ball joint
4x screws



Mod.
R-41-32
R-41-40
R-41-50
R-41-63
R-41-80
R-41-100
R-50
R-80

Clevis pin Mod. S

Supplied with:
1x clevis pin in stainless steel 303
2x Seeger in steel



Mod.
S-32
S-40
S-50
S-63
S-80
S-100

Swivel ball joint Mod. GA

ISO 8139
Material: zinc-plated steel



Mod.
GA-32
GA-40
GA-50-63
GA-80-100

Piston rod socket joint Mod. GY

Material: zama and zinc-plated steel



Mod.
GY-32
GY-40
GY-50-63
GY-80-100

Rod fork end Mod. G

ISO 8140
Material: zinc-plated steel



Mod.
G-25-32
G-40
G-50-63
G-80-100

Piston rod lock nut Mod. U

ISO 4035
Material: zinc-plated steel



Mod.
U-25-32
U-40
U-50-63
U-80-100

Self aligning rod Mod. GK

Material: zinc-plated steel



Mod.
GK-25-32
GK-40
GK-50-63
GK-80-100

Coupling piece Mod. GKF

Material: zinc-plated steel



Mod.
GKF-25-32
GKF-40
GKF-50-63
GKF-80-100

Slot cover profile Mod. S-CST-500

Supplied with 500 mm tube

Slot nut for sensor

Material: steel
Supplied with:
2x nuts



Mod.
PCV-5E-CS-M3
PCV-5E-CS-M4

Compact electromechanical cylinders Series 3E



Sizes 20, 32



- » Flexibility
- » Ease of use
- » Reduced commissioning times
- » Increased machine efficiency and productivity

ELECTRIC ACTUATION

2

CODING EXAMPLE

3E	020	BS	0100	P10	M	
-----------	------------	-----------	-------------	------------	----------	--

3E	SERIES
020	SIZE 020 = 20 032 = 32
BS	TRANSMISSION BS = recirculating ball screw
0100	STROKE See table of mechanical characteristics
P10	SCREW PITCH P03 = 3 mm P10 = 10 mm
M	CONSTRUCTION M = male F = female
	EXTENDED ROD (___) = rod extended with ___ mm

MECHANICAL CHARACTERISTICS

		Size 20	Size 20	Size 32	Size 32
Pitch "P"	[mm]	3	10	3	10
Dynamic load coefficient "C"	[N]	2100	1875	2800	2500
Average load (A)	[N]	177	236	236	315
Max torque applicable to screw's shaft	[Nm]	0,42	1,41	0,53	1,77
Max force applicable*	[N]	800	800	1000	1000
Max linear speed cylinder*	[m/s]	0,4	1,3	0,4	1,3
Maximum rotation speed of the cylinder shaft	[rpm]	8000	8000	8000	8000
Max acceleration of cylinder	[m/s ²]	25	25	25	25
Min Stroke	[mm]	10	25	10	25
Max Stroke	[mm]	300	300	500	500

(A) Value refers to a covered distance of 5000 Km (see the diagrams "Life of the cylinder according to the average axial force applied").

*This parameter varies as the stroke varies (see the diagrams "Maximum speed of the cylinder according to its stroke").

CODING EXAMPLE - CYLINDER SUPPLIED WITH ASSEMBLED MOTOR AND STANDARD ACCESSORIES AM AND PM



3E	020	BS	0100	P10	M		/	AM	A	0	E	-	EC	SF
-----------	------------	-----------	-------------	------------	----------	--	----------	-----------	----------	----------	----------	----------	-----------	-----------

3E	SERIES
020	SIZE 020 = 20 032 = 32
BS	TRANSMISSION BS = recirculating ball screw
0100	STROKE See table of mechanical characteristics on the previous page
P10	SCREW PITCH P03 = 3 mm P10 = 10 mm
M	CONSTRUCTION M = male F = female
	EXTENDED ROD () = rod extended with ___ mm
AM	MOTOR CONNECTION AM = Kit Mod. AM PM = Kit Mod. PM
A	MOTOR A = MTS 17 B = MTS 23 C = MTS 24 E = DRVI-23ST F = DRVI-24ST G = DRVI-24EC
0	BRAKE 0 = without brake B = with brake (for motor A, B, C only)
E	ENCODER VARIANTS 0 = without encoder E = with encoder
EC	TYPE OF COMMUNICATION PN = Profinet CO = CanOpen EC = Ethercat EI = Ethernet IP = without drive
SF	ADDITIONAL FUNCTIONS = no additional function SF = STO (not certified)

Kit for axial connection Mod. AM

Supplied with:
1 housing
1 flexible coupling
4 nuts
4 motor connection screws



Mod.
AM-3E-20-0017
AM-3E-32-0023
AM-3E-32-0024
AM-3E-32-0100

Kit for parallel connection Mod. PM

Supplied with:
1 front cover
1 rear cover
2 pulleys
2 locking sets
1 plate for pulley
1 toothed belt
3 nuts

4 rear cover screws
2-4 cover fixing screws
2 cylindrical pins
4 motor fixing screws



Mod.
PM-3E-20-0017
PM-3E-32-0023
PM-3E-32-0024
PM-3E-32-0100

Foot bracket Mod. B-3E-AM

Material: zinc-plated steel
Supplied with:
2 foot brackets
4 screws



Mod.
B-3E-20-AM
B-3E-32-AM-1
B-3E-32-AM-2

Foot bracket Mod. B-3E-PM

Material: zinc-plated steel
Supplied with:
2 foot brackets
4 screws



Mod.
B-3E-20-PM
B-3E-32-PM

Front spot faced trunnion Mod. FN

Material: zinc-plated steel
Supplied with:
1 spot faced trunnion
4 screws
4 washers



Mod.
FN-3E-32

Counter bracket for front trunnion Mod. BF

Material: aluminium
Supplied with:
2 supports



Mod.
BF-32

Front flange Mod. D-E

Material: aluminium
Supplied with:
1 flange
4 screws
4 washers



Mod.
D-E-3E-32

Side clamping bracket Mod. BG

Material: aluminium
Supplied with:
2 clamps



Mod.
BG-3E-20
BG-3E-32

Rear male trunnion Mod. L

Material: aluminium
Supplied with:
1 male trunnion
4 screws
4 washers (only for size 32)



Mod.
L-3E-20
L-3E-32

Rear female trunnion Mod. C

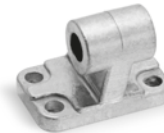
Material: aluminium
Supplied with:
1 female trunnion
4 screws
4 washers



Mod.
C-3E-32

90° male trunnion Mod. ZC

CETOP RP 107P
Material: aluminium
Supplied with:
1 male support



Mod.
ZC-32

Trunnion ball-joint Mod. R

Supplied with:
1 trunnion ball-joint
4 screws
4 washers



Mod.
R-3E-32

Clevis pin Mod. S

Supplied with:
1 clevis pin in stainless steel 303
2 Seeger in steel



Mod.
S-32

Swivel ball joint Mod. GA

ISO 8139
Material: zinc-plated steel



Mod.
GA-20
GA-22

Piston rod socket joint Mod. GY

Material: zama and zinc-plated steel



Mod.
GY-20
GY-32

Rod fork end Mod. G

ISO 8140
Material: zinc-plated steel



Mod.
G-20
G-25-32

Piston rod lock nut Mod. U

ISO 4035
Material: zinc-plated steel



Mod.
U-20
U-25-32

Self aligning rod Mod. GK

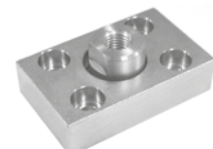
Material: zinc-plated steel



Mod.
GK-20
GK-25-32

Coupling piece Mod. GKF

Material: zinc-plated steel



Mod.
GKF-20
GKF-25-32

Electromechanical axis Series 5ES...TBL

Sizes 50, 65, 80

Available versions: standard axis, support axis, reinforced axis

ELECTRIC ACTUATION

2



- » Multiposition system with transmission of the movement with toothed belt
- » Suitable for high dynamics
- » Possibility to connect the motor on 4 sides
- » Large range of motor interfaces
- » Possibility to use magnetic proximity switches and/or inductive sensors
- » IP 40
- » Supplied with protection plugs for end caps and slider's centering bushings
- » Max stroke 6 meters
- » Plates to realize multi-axis systems
- » Presence of internal channels for re-lubrication
- » Greasing nipples included
- » Large range of axis mounting accessories
- » Sliders available: standard, long, double

CODING EXAMPLE

5E	S	050	TBL	0200	A	S	2(500)
5E	SERIES						
S	PROFILE S = square section						
050	FRAME SIZE 050 = 50x50 mm 065 = 65x65 mm 080 = 80x80 mm						
TBL	TRANSMISSION TBL = toothed belt						
0200	STROKE 0050 ÷ 4000 mm for size 050 0050 ÷ 6000 mm for sizes 065 and 080						
A	VERSIONS A = standard axis D = support axis H = reinforced axis (for sizes 65 and 80 only)						
S	TYPE OF SLIDER S = standard L = long - only for standard axis (A version)						
2(500)	NUMBER OF SLIDERS 1 = 1 slider 2 (____) = 2 sliders at (____) mm step - only for standard axis (A) with support axis (D) and standard slider (S)						

Side clamping bracket Mod. BGS

Material: Aluminium
Supplied with:
2x clamps

Mod.
BGS-5E-M5
BGS-5E-M5
BGS-5E-M5
BGS-5E-M6
BGS-5E-M6
BGS-5E-M6

**Perforated side clamping bracket Mod. BGA**

Material: Aluminium
Supplied with:
2x clamps with perforation

Mod.
BGA-5E-M5
BGA-5E-M5
BGA-5E-M5
BGA-5E-M6
BGA-5E-M6
BGA-5E-M6

**Interface plate - slider on slider**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis
4x screws + 4x lock washers to connect the plate on the slider of the secondary axis

Mod.
XY-S65-S50
XY-S80-S50
XY-S80-S65

**Interface plate - profile on slider**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis
4x clamps
8x screws + 8x lock washers to connect the secondary axis on the plate by means of clamps

Mod.
XY-S65-P50
XY-S80-P50
XY-S80-P65

**Interface plate - profile on slider - long arm**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect plate on the slider of the main axis
4x clamps
8x screws + 8x lock washers to connect plate on the slider of the secondary axis by means of clamps
NB: Pay attention when mounting models FRH and FS

Mod.
XY-S50-P50-T
XY-S65-P50-T
XY-S65-P65-T
XY-S80-P50-T
XY-S80-P65-T
XY-S80-P80-T

**Interface plate - Series 6E cylinder on slider**

The kit includes:
1x interface plate
4x screws + 4x lock washers to connect the plate on the slider of the axis
2x clamps
4x screws + 4x lock washers to fix the Series 6E cylinder by means of clamps

Mod.
XY S50-6E32
XY-S65-6E32
XY-S65-6E40
XY S65-6E50
XY-S80-6E32
XY-S80-6E40
XY-S80-6E50
XY S80-6E63

**Interface plate - profile side on slider - left position**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis,
screws and nuts for slot to connect the plate on the slider of the secondary axis

Mod.
XY-S50-LL50
XY-S65-LL50
XY-S65-LL65
XY-S80-LL50
XY-S80-LL65
XY-S80-LL80

**Interface plate - profile side on slider - right position**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis,
screws and nuts for slot to connect the plate on the slider of the secondary axis

Mod.
XY-S50-LR50
XY-S65-LR50
XY-S65-LR65
XY-S80-LR50
XY-S80-LR65
XY-S80-LR80

**Interface plate - Anti-rotation guides S. 45 / Cylinders S. 6E on slider**

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider
4x screws to connect the cylinder

Mod.
XY-S50-45N32
XY-S65-45N32
XY-S65-45N40
XY-S65-45N50
XY-S80-45N40
XY-S80-45N50
XY-S80-45N63

**Fixed interface plate**

The kit includes:
1x interface plate
4x clamps
8x screws to connect the clamps on the plate

Mod.
X-P50
X-P65
X-P80



5E/5V connection flange

Mod.
YZ-50-5V50
YZ-65-5V50
YZ-65-5V65
YZ-80-5V50
YZ-80-5V65
YZ-80-5V80



Centering ring Mod. TR-CG

Supplied with:
2x centering rings in steel

Mod.
TR-CG-04
TR-CG-05
TR-CG-06
TR-CG-08
TR-CG-10
TR-CG-12



Kit to fix the inductive sensor

The kit includes:
1x sensor dog
2x screws to fix the sensor dog
1x sensor supporting plate
2x screws to connect the sensor supporting plate
2x nuts for the slot

Mod.
SIS-M5-50/65
SIS-M8-65
SIS-M5-80
SIS-M8-80



Kit to connect the Series FR gearbox

The kit includes:
1x connection flange
4x screws + 4x lock washers to connect the flange
1x locking set
4x screws + 4x lock washers to connect the gearbox

Mod.
FR-5E-50
FR-5E-65
FR-5E-80



Kit to connect the gearbox - enhanced series (sizes 50, 65)

The kit includes:
1x connection flange
4x screws + 4x lock washers to connect the flange
1x expansion coupling
4x screws + 4x lock washers to connect the gearbox

Mod.
FRH-5E-50
FRH-5E-65



Kit to connect the gearbox - enhanced series (size 80)

The kit includes:
2x connection flanges
4x screws + 4x lock washers
1x expansion coupling
4x screws + 4x lock washers to fix the axis
4x screws + 4x lock washers to fix the profile
4x nuts + 4x screws to fix the gearbox

Mod.
FRH-5E-80



Direct connection kit for Stepper motor

The kit includes:
1x MTS-24 connection flange
4x screws + 4 lock washers
1x expansion coupling
1x bushing (not present in FS-5E-50-0024)

Mod.
FS-5E-50-0024
FS-5E-65-0024



Slot nut for sensor

Material: steel
Supplied with:
2x nuts

Mod.
PCV-5E-CS-M3
PCV-5E-CS-M4



Slot nut 6 - rectangular type

Material: steel
Supplied with:
2x nuts

Mod.
PCV-5E-C6-M4Q



Slot nut 6 for front insertion

Material: steel
Supplied with:
2x nuts

Mod.
PCV-5E-C6-M4R



Slot nut 8 with flexible flap

Material: steel
Supplied with:
2x nuts

Mod.
PCV-5E-C8-M5
PCV-5E-C8-M6



Parallel connection kit

The kit includes:
1x parallel shaft
2x expansion couplings

Mod.
PS-5E-50-0000
PS-5E-65-0000
PS-5E-80-0000



Electromechanical axis

Series 5ES...BS

Series 5ES...BS axes are mechanical linear actuators in which the rotary movement generated by a motor is converted into a linear movement by means of a recirculating ball screw.



- » Multiposition system with transmission of the movement with a recirculating ball screw
- » High load carrying capacity
- » High precision and repeatability
- » IP40
- » Large range of axis mounting accessories

CODING EXAMPLE

5E	S	050	BS	0200	A	S	1
-----------	----------	------------	-----------	-------------	----------	----------	----------

5E	SERIES
S	PROFILE S = square section
050	SIZE 050 = 50x50 mm 065 = 65x65 mm 080 = 80x80 mm
BS	TRANSMISSION BS = recirculating ball screw
05P	SCREW PITCH 00P = without spindle (only for D version) 05P = 5 mm 10P = 10 mm 16P = 16 mm (only for size 080)
0200	TOTAL STROKE (TS) Refer to complete catalogue
A	VERSIONS A = standard axis D = support axis (dummy)
S	TYPE OF SLIDER S = standard C = short
1	NUMBER OF SLIDERS 1 = 1 slider

Side clamping bracket Mod. BGS

Material: Aluminium
Supplied with:
2x clamps

Mod.
BGS-5E-M5
BGS-5E-M5
BGS-5E-M5
BGS-5E-M6
BGS-5E-M6
BGS-5E-M6



Perforated side clamping bracket Mod. BGA

Material: Aluminium
Supplied with:
2x clamps with perforation

Mod.
BGA-5E-M5
BGA-5E-M5
BGA-5E-M5
BGA-5E-M6
BGA-5E-M6
BGA-5E-M6



Interface plate - slider on slider

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis
4x screws + 4x lock washers to connect the plate on the slider of the secondary axis

Mod.
XY-S65-S50
XY-S80-S50
XY-S80-S65



Interface plate - profile on slider

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis
4x clamps
8x screws + 8x lock washers to connect the secondary axis on the plate by means of clamps

Mod.
XY-S65-P50
XY-S80-P50
XY-S80-P65



Interface plate - profile on slider - long arm

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect plate on the slider of the main axis
4x clamps
8x screws + 8x lock washers to connect plate on the slider of the secondary axis by means of clamps

Mod.
XY-S50-P50-T
XY-S65-P50-T
XY-S65-P65-T
XY-S80-P50-T
XY-S80-P65-T
XY-S80-P80-T



Interface plate - Series 6E cylinder on slider

The kit includes:
1x interface plate
4x screws + 4x lock washers to connect the plate on the slider of the axis
2x clamps
4x screws + 4x lock washers to fix the Series 6E cylinder by means of clamps

Mod.
XY S50-6E32
XY-S65-6E32
XY-S65-6E40
XY S65-6E50
XY-S80-6E32
XY-S80-6E40
XY-S80-6E50
XY S80-6E63



Interface plate - profile side on slider - left position

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis, screws and nuts for slot to connect the plate on the slider of the secondary axis

Mod.
XY-S50-LL50
XY-S65-LL50
XY-S65-LL65
XY-S80-LL50
XY-S80-LL65
XY-S80-LL80



Interface plate - profile side on slider - right position

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider of the main axis, screws and nuts for slot to connect the plate on the slider of the secondary axis

Mod.
XY-S50-LR50
XY-S65-LR50
XY-S65-LR65
XY-S80-LR50
XY-S80-LR65
XY-S80-LR80



Interface plate - Anti-rotation guides S. 45 / Cylinders S. 6E on slider

The kit includes:
1x interface plate
8x screws + 8x lock washers to connect the plate on the slider
4x screws to connect the cylinder

Mod.
XY-S50-45N32
XY-S65-45N32
XY-S65-45N40
XY-S65-45N50
XY-S80-45N40
XY-S80-45N50
XY-S80-45N63



Fixed interface plate

The kit includes:
1x interface plate
4x clamps
8x screws to connect the clamps on the plate

Mod.
X-P50
X-P65
X-P80



5E/5V connection flange

Mod.
YZ-50-5V50
YZ-65-5V50
YZ-65-5V65
YZ-80-5V50
YZ-80-5V65
YZ-80-5V80

**Centering ring**

Supply includes:
2 steel centering rings

Mod.
TR-CG-04
TR-CG-05
TR-CG-06
TR-CG-08
TR-CG-10
TR-CG-12

**Kit for axial connection Mod. AM**

Supplied with
flexible coupling

Mod.
AM-5E-50-0100
AM-5E-50-0024
AM-5E-65-0400
AM-5E-65-0024
AM-5E-80-0750
AM-5E-80-0024

**Kit for parallel connection Mod. PM**

Mod.
PM-5E-50-0100
PM-5E-50-0024
PM-5E-65-0400
PM-5E-65-0024
PM-5E-80-0750
PM-5E-80-0400
PM-5E-80-0024

**Slot nut for sensor**

Material: steel
Supplied with:
2x nuts



Mod.
PCV-5E-CS-M3
PCV-5E-CS-M4

Slot nut 6 - rectangular type

Material: steel
Supplied with:
2x nuts



Mod.
PCV-5E-C6-M4Q

Slot nut 6 for front insertion

Material: steel
Supplied with:
2x nuts



Mod.
PCV-5E-C6-M4R

Slot nut 8 with flexible flap

Material: steel
Supplied with:
2x nuts



Mod.
PCV-5E-C8-M5
PCV-5E-C8-M6

Vertical electromechanical axis Series 5V

Sizes 50, 65, 80



- » High dynamics
- » Easy to integrate in x-y-z systems
- » Strokes up to 1500 mm
- » Version with integrated shock absorbers
- » Greasing nipples included
- » Supplied with slider's centering bushings

CODING EXAMPLE

5V	S	050	TBL	0200	A	S	1	
-----------	----------	------------	------------	-------------	----------	----------	----------	--

5V	SERIES
S	PROFILE: S = square section
050	FRAME SIZE: 050 = 50x50 mm 065 = 65x65 mm 080 = 80x80 mm
TBL	TRANSMISSION: TBL = toothed belt
0200	STROKE: 0050 ÷ 1500
A	VERSION: A = standard H = reinforced axis (for sizes 65 and 80 only)
S	TYPE OF SLIDER: S = standard
1	NUMBER OF SLIDERS: 1 = 1 slider
	TYPE OF END CAP: = standard SA = shock absorber integrated

Kit to connect the gearbox

The kit includes:
 1x connection flange
 4x screws + 4x lock washers to connect the flange
 1x locking set
 4x screws + 4x lock washers to connect the gearbox

Mod.
 FR-5V-50
 FR-5V-65
 FR-5V-80

**Magnet kit Mod. SMS-5V-U**

Supplied with:
 1x plate
 1x magnet
 2x locking screws

Mod.
 SMS-5V-U

**Sensor holder kit Mod. SMS-5V**

Supplied with:
 1x plate
 2x screws

Mod.
 SMS-5V-50
 SMS-5V-65/80
 SMS-5V-65/80

**Centering ring Mod. TR-CG**

Supplied with:
 2x centering rings in steel

Mod.
 TR-CG-04
 TR-CG-05
 TR-CG-06
 TR-CG-08
 TR-CG-10
 TR-CG-12

**5E/5V connection flange**

Mod.
 YZ-50-5V50
 YZ-65-5V50
 YZ-65-5V65
 YZ-80-5V50
 YZ-80-5V65
 YZ-80-5V80

**Slot nut for sensor**

Material: steel
 Supplied with:
 2x nuts

Mod.
 PCV-5E-CS-M3
 PCV-5E-CS-M4

**Slot nut 6 - rectangular type**

Material: steel
 Supplied with:
 2x nuts

Mod.
 PCV-5E-C6-M4Q

**Slot nut 6 for front insertion**

Material: steel
 Supplied with:
 2x nuts

Mod.
 PCV-5E-C6-M4R

**Slot nut 8 with flexible flap**

Material: steel
 Supplied with:
 2x nuts

Mod.
 PCV-5E-C8-M5
 PCV-5E-C8-M6



Drives for Stepper motors Series DRCS

One-size full digital drives with WLAN system and NFC integrated



- » Full digital drive with integrated PLC functions
- » Programmable with the Camozzi QSet configuration software
- » Feedback by incremental encoder
- » NFC (Near Field Communication) system enabled
- » 127 programmable positions (setting, acceleration, speed and position)
- » Wire configuration by means of USB 2.0 and WLAN BL-BLE
- » Can be controlled in frequency (step and direction), digital I/O and serial CANopen protocol

CODING EXAMPLE

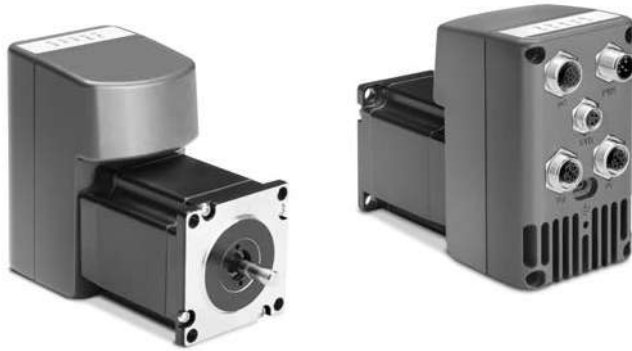
DRCS	-	A05	-	8	-	D	-	0	-	A
-------------	---	------------	---	----------	---	----------	---	----------	---	----------

DRCS	SERIES
A05	SIZE AT MAX CURRENT: A05 = 7A
8	SUPPLY: 8 = 48 V DC
D	COMMUNICATION: D = Digital I/O and impulse frequency C = CANopen, Digital I/O and impulse frequency
0	FEEDBACK: 0 = Feedback
A	VERSIONS: A = standard B = WLAN BL-BLE

Integrated field-oriented control drive Series DRVI

New

For stepper and brushless DC, Nema 23 and Nema 24 motors



- » Integrated solution: Encoder, motor, and drive all in one
- » Versatile: Control of different types of motors: brushless DC and stepper, Nema 23 and 24
- » Energy efficient: Compared to traditional stepper motors
- » Precise Positioning: With no loss of steps achieved through Field-Oriented Control
- » Different communication protocols: CANopen, Profinet, EtherCAT, Ethernet IP

ELECTRIC ACTUATION

2

CODING EXAMPLE

DRVI	-	23	ST	012	-	0	E	-	PN	SF
DRVI	SERIES									
23	MOTOR FLANGE 23 = Nema 23 24 = Nema 24									
ST	MOTOR TYPE ST = stepper EC = brushless DC									
012	MOTOR TORQUE 012 = 1,2 Nm (Nema 23) 022 = 2,2 Nm (Nema 24) 125 = 125 W (Only for EC)									
0	MOTOR BRAKE 0 = without brake									
E	MOTOR FEEDBACK E = absolute single turn encoder									
PN	COMMUNICATION PROTOCOL PN = Profinet CO = CanOpen EC = EtherCAT EI = EtherNet/IP									
SF	SAFETY FUNCTION = Standard SF = Safe torque off (not certified)									

Straight connector for power supply

Connector for power supplies (PWR)



Mod.
CS-LF04HB

Cable with M12 5 pin connector, female, shielded

Cable for power supplies (PWR)



Mod.
CS-LF05HB-D200
CS-LF05HB-D500

Female connector 90°

Connector for power supplies (PWR)



Mod.
CS-LR05HC

M12 male connector

General Purpose Input/Output (GPIO)



Mod.
CS-LM12HC

Y-cable with straight and M12 / 12 pin and M8 / 6 pin connectors (proximity)

General Purpose Input/Output (GPIO)



Mod.
CS-LO12HC-D025

Extension with M8 connector, 3 pin male/female (Non shielded)

General Purpose Input/Output (GPIO)



Mod.
CS-DW03HB-C250
CS-DW03HB-C500

Cable with M12, 12-pin male connector, straight

General Purpose Input/Output (GPIO)



Mod.
CS-LM12HC-D500

M8 3 pin female connector

General Purpose Input/Output (GPIO)



Mod.
CS-DF03HB

M8 4 pin male connector

Safe Torque Off (STO)



Mod.
CS-DM04HB

Cable with M8 4-pole male connectors, straight

Safe Torque Off (STO)



Mod.
CS-LM04HB-D500

Cables with straight connectors

Profinet, EtherCAT, EtherNet/IP



Mod.
CS-SB04HB-D100
CS-SB04HB-D500
CS-SB04HB-DA00

Adaptor and panel mount for Ethernet RJ45 to M12 networks

Profinet, EtherCAT, EtherNet/IP



Mod.
CS-SE04HB-F050

Straight female M12 connector for Bus-IN

CANopen



Mod.
CS-LF05HC

Male M12 connectors for Bus-OUT

CANopen



Mod.
CS-LM05HC

Cable with M12 5 pin connector, straight female for Bus-IN

CANopen



Mod.
CS-LF05HB-D200
CS-LF05HB-D500

Straight cable with M12 male connector for BUS OUT

CANopen



Mod.
CS-LM05HC-D200
CS-LM05HC-D50

M12 Male connector, 90°, for Bus-IN

CANopen



Mod.
CS-LR05HC

M12 Male connector, 90°, for Bus-OUT

CANopen



Mod.
CS-LS05HC

Termination resistor with M12 male connector

CANopen



Mod.
CS-LP05HO

USB to Micro USB cable Mod. G11W-G12W-2

For the hardware configuration of the Camozzi products



Mod.
G11W-
G12W-2

M8 and M12 connector cover caps

For digital and analog input/output modules and subnet



Mod.
CS-DFTP
CS-LFTP

Motors for electric actuation Series MTS

Stepper motors with Nema 17, 23, 24, 34 fixing flange

- » Low inertia motors
- » Different sizes or power classes available
- » Version with incremental encoder
- » Version with incremental encoder and brake
- » IP65 version available



CODING EXAMPLE

MTS	-	23	-	18	-	060	-	0	-	0	-	S	-	C
------------	---	-----------	---	-----------	---	------------	---	----------	---	----------	---	----------	---	----------

MTS	SERIES
23	MOTOR SIZE FLANGE CONNECTION: 17 = Nema 17 23 = Nema 23 24 = Nema 24 34 = Nema 34
18	RESOLUTION IN DEGREES PER REVOLUTION: 18 = 1.8° per step
060	TORQUE: 050 = 0,5 Nm with Nema 17 only 060 = 0.6 Nm with Nema 23 only 120 = 1.2 Nm with Nema 23 IP65 only 250 = 2.5 Nm with Nema 24 only 701 = 7.1 Nm with Nema 34 only
0	ELECTRICAL CONNECTION: 0 = connector
0	BRAKE: 0 = without brake F = with brake
S	ENCODER VARIANTS: S = single shaft without encoder E = single shaft with encoder (SIZE Nema 23 and 24 only)
C	MECHANICAL SHAFT VARIANTS: C = cylindrical shaft
	VERSION: = Standard P = IP65

Planetary gearboxes Series GB

Available sizes: 40, 60, 80, 120

In-line planetary gearbox



Mod.		
GB-040-03-D-0100	GB-060-07-D-0400	GB-080-03-D-0024
GB-040-05-D-0100	GB-060-10-D-0400	GB-080-05-D-0024
GB-040-07-D-0100	GB-060-03-D-0024	GB-080-07-D-0024
GB-040-10-D-0100	GB-060-05-D-0024	GB-080-10-D-0024
GB-040-03-D-0024	GB-060-07-D-0024	GB-120-03-D-1000
GB-040-05-D-0024	GB-060-10-D-0024	GB-120-05-D-1000
GB-040-07-D-0024	GB-080-03-D-0750	GB-120-07-D-1000
GB-040-10-D-0024	GB-080-05-D-0750	GB-120-10-D-1000
GB-060-03-D-0400	GB-080-07-D-0750	
GB-060-05-D-0400	GB-080-10-D-0750	

Orthogonal planetary gearbox



Mod.		
GB-040-03-A-0100	GB-060-07-A-0400	GB-080-03-A-0024
GB-040-05-A-0100	GB-060-10-A-0400	GB-080-05-A-0024
GB-040-07-A-0100	GB-060-03-A-0024	GB-080-07-A-0024
GB-040-10-A-0100	GB-060-05-A-0024	GB-080-10-A-0024
GB-040-03-A-0024	GB-060-07-A-0024	GB-120-03-A-1000
GB-040-05-A-0024	GB-060-10-A-0024	GB-120-05-A-1000
GB-040-07-A-0024	GB-080-03-A-0750	GB-120-07-A-1000
GB-040-10-A-0024	GB-080-05-A-0750	GB-120-10-A-1000
GB-060-03-A-0400	GB-080-07-A-0750	
GB-060-05-A-0400	GB-080-10-A-0750	

Motion transmission devices Series CO

Elastomer coupling with clamps Mod. COE



CODING EXAMPLE

COE	-	10	-	1200	-	1400	-	A
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COE	SERIES MODEL	
10	SIZE: 05 10 20 60	
1200	HOLE DIAMETER 1: 0635 = 6,35 mm (for sizes 5 and 10 only) 0800 = 8,00 mm (for sizes 5 and 10 only) 1000 = 10,00 mm (for sizes 5 and 10 only) 1100 = 11,00 mm (for size 5 only) 1200 = 12,00 mm (for sizes 10 and 20 only) 1400 = 14,00 mm (for sizes 10, 20 and 60 only) 1500 = 15,00 mm (for sizes 10 and 20 only)	1600 = 16,00 mm (for sizes 10, 20 and 60 only) 1900 = 19,00 mm (for sizes 20 and 60 only) 2000 = 20,00 mm (for sizes 20 and 60 only) 2400 = 24,00 mm (for sizes 20 and 60 only) 2500 = 25,00 mm (for size 60 only) 3200 = 32,00 mm (for size 60 only)
1400	HOLE DIAMETER 2: 0635 = 6.35mm (for sizes 5 and 10 only) 0800 = 8.00mm (for sizes 5 and 10 only) 1000 = 10.00mm (for sizes 5 and 10 only) 1100 = 11.00mm (for size 5 only) 1200 = 12.00mm (for sizes 10 and 20 only) 1400 = 14.00mm (for sizes 10, 20 and 60 only) 1500 = 15.00mm (for sizes 10 and 20 only)	1600 = 16.00mm (for sizes 10, 20 and 60 only) 1900 = 19.00mm (for sizes 20 and 60 only) 2000 = 20.00mm (for sizes 20 and 60 only) 2400 = 24.00mm (for sizes 20 and 60 only) 2500 = 25.00mm (for size 60 only) 3200 = 32.00mm (for size 60 only)
A	ELASTOMER HARDNESS: A = 98 Sh A B = 64 Sh D (for sizes 10 and 20 only)	

Elastomer coupling with expansion shaft Mod. COS



CODING EXAMPLE

COS	-	10	-	2000	-	1400	-	A
------------	---	-----------	---	-------------	---	-------------	---	----------

COS	SERIES MODEL	
10	SIZE: 10 20 60	
2000	SHAFT DIAMETER: 2000 = 20.00mm (for size 10 only) 2600 = 26.00mm (for size 20 only) 3800 = 38.00mm (for size 60 only)	
1400	HOLE DIAMETER: 0635 = 6.35mm (for size 10 only) 0800 = 8.00mm (for size 10 only) 1000 = 10.00mm (for size 10 only) 1200 = 12.00mm (for sizes 10 and 20 only) 1270 = 12.70mm (for size 10 only) 1400 = 14.00mm (for sizes 10, 20 and 60 only) 1500 = 15.00mm (for sizes 10 and 20 only) 1600 = 16.00mm (for sizes 10, 20 and 60 only) 1900 = 19.00mm (for sizes 20 and 60 only) 2000 = 20.00mm (for sizes 20 and 60 only) 2200 = 22.00mm (for size 20 only) 2400 = 24.00mm (for sizes 20 and 60 only) 2500 = 25.00mm (for size 60 only) 3200 = 32.00mm (for size 60 only)	
A	ELASTOMER HARDNESS: A = 98 Sh A B = 64 Sh D (for sizes 10 and 20 only)	

Self-centering locking-set Mod. COT



Mod.
COT-1800-0800
COT-2000-1000
COT-2200-1200
COT-2600-1400
COT-2800-1500
COT-3500-1900
COT-3800-2000
COT-4700-2400
COT-4700-2500

Angular grippers with opening angle of 30° Series CGAN

Double acting, magnetic, self centering
Size: 10, 16, 20, 25, 32

PNEUMATIC SYMBOL



- Mod.
- CGAN-10
- CGAN-16
- CGAN-20
- CGAN-25
- CGAN-32



CODING EXAMPLE

CGAN	-	20	-	EX
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CGAN	SERIES	PNEUMATIC SYMBOL
16	SIZE	PNZ1
	10	
	16	
	20	
	25	
EX	Add EX to order the certified ATEX version	

GRIPPERS

3

Mounting brackets Mod. L-CGP

- Mod.
- L-CGP-16
- L-CGP-20
- L-CGP-25
- L-CGP-32



Mounting brackets Mod. C-CGP

- Mod.
- C-CGP-16
- C-CGP-20
- C-CGP-25
- C-CGP-32



Radial grippers 180° opening Series CGSY

Double acting, magnetic, self-centering
Size: 10, 16, 20, 25

PNEUMATIC SYMBOL



- Mod.
- CGSY-10
- CGSY-16
- CGSY-20
- CGSY-25



CODING EXAMPLE

CGSY	-	16	-	EX
-------------	---	-----------	---	-----------

CGSY	SERIES	PNEUMATIC SYMBOL
20	SIZE	PNZ1
	10	
	16	
	20	
	25	
EX	Add EX to order the certified ATEX version	

New models

Parallel grippers with T-guide Series CGPT

Single and double acting, magnetic, self-centering
Size: 16, 20, 25, 32, 40, 50, 63, 80

PNEUMATIC SYMBOLS



Mod.			
CGPT-16	CGPT-25	CGPT-40	CGPT-63
CGPT-16-NC	CGPT-25-NC	CGPT-40-NC	CGPT-63-NC
CGPT-16-NO	CGPT-25-NO	CGPT-40-NO	CGPT-63-NO
CGPT-20	CGPT-32	CGPT-50	CGPT-80
CGPT-20-NC	CGPT-32-NC	CGPT-50-NC	CGPT-80-NC
CGPT-20-NO	CGPT-32-NO	CGPT-50-NO	CGPT-80-NO

CODING EXAMPLE

CGPT	-	16	-	NC	-	W	EX
------	---	----	---	----	---	---	----

CGPT	SERIES	
16	SIZE 16 - 20 - 25 - 32 - 40 - 50 - 63 - 80	
NC	FUNCTIONING = double acting NO = single acting, normally open NC = single acting, normally closed	PNEUMATIC SYMBOLS PNZ1 PNZ3 PNZ2
W	VERSION = standard - W = high temperatures (150°C) - not magnetic	
EX	Add EX to order the certified ATEX version	

Parallel grippers with double ball bearing guide Series CGPS

Single and double acting, magnetic, self-centering
Size: 10, 16, 20, 25, 32

PNEUMATIC SYMBOLS



Mod.				
CGPS-L-10	CGPS-L-16	CGPS-L-20	CGPS-L-25	CGPS-L-32
CGPS-F-10	CGPS-F-16	CGPS-F-20	CGPS-F-25	CGPS-F-32
CGPS-L-10-NC	CGPS-L-16-NC	CGPS-L-20-NC	CGPS-L-25-NC	CGPS-L-32-NC
CGPS-F-10-NC	CGPS-F-16-NC	CGPS-F-20-NC	CGPS-F-25-NC	CGPS-F-32-NC
CGPS-L-10-NO	CGPS-L-16-NO	CGPS-L-20-NO	CGPS-L-25-NO	CGPS-L-32-NO
CGPS-F-10-NO	CGPS-F-16-NO	CGPS-F-20-NO	CGPS-F-25-NO	CGPS-F-32-NO

CODING EXAMPLE

CGPS	-	L	-	16	-	NO	-	W	EX
------	---	---	---	----	---	----	---	---	----

CGPS	SERIES	
L	DESIGN TYPE: L = Long finger - F = Flat finger	
16	SIZE 10 - 16 - 20 - 25 - 32	
NO	FUNCTIONING = double acting NO = single acting, normally open NC = single acting, normally closed	PNEUMATIC SYMBOLS PNZ1 PNZ3 PNZ2
W	VERSION: = standard - W = high temperatures (150°C) non magnetic	
EX	Add EX to order the certified ATEX version	

Centering ring Mod. TR-CG

Supplied with:
2x centering rings in steel

Mod.	
TR-CG-04	
TR-CG-05	TR-CG-08
TR-CG-06	TR-CG-10



Mounting shaft Mod. C-CGPS

Mod.	
C-CGPS-10	
C-CGPS-16	
C-CGPS-20	
C-CGPS-25	



Extension for mounting shaft Mod. L-CGPS

Mod.	
L-CGPS-10	
L-CGPS-16	
L-CGPS-20/25	
L-CGPS-32	



Parallel grippers self-centering with H-shaped guide Series CGPM

Single and double acting, magnetic, self-centering
Bores: 12, 16, 25, 35, 45
Standard stroke or long stroke

PNEUMATIC SYMBOLS



CODING EXAMPLE

CGPM - 12 L - NC - EX

CGPM	SERIES		
12	BORES 12 - 16 - 25 - 35 - 45		
L	STROKE = standard L = long stroke		
L	FUNCTIONING = double acting NO = single acting, normally open NC = single acting, normally closed	PNEUMATIC SYMBOLS PNZ1 PNZ3 PNZ2	
EX	Add EX to order the certified ATEX version		

Mod.				
CGPM-12	CGPM-16	CGPM-25	CGPM-35	CGPM-45
CGPM-12-NC	CGPM-16-NC	CGPM-25-NC	CGPM-35-NC	CGPM-45-NC
CGPM-12-NO	CGPM-16-NO	CGPM-25-NO	CGPM-35-NO	CGPM-45-NO
CGPM-12L	CGPM-16L	CGPM-25L	CGPM-35L	CGPM-45L
CPGM-12L-NC	CPGM-16L-NC	CPGM-25L-NC	CPGM-35L-NC	CPGM-45L-NC
CGPM-12L-NO	CGPM-16L-NO	CGPM-25L-NO	CGPM-35L-NO	CGPM-45L-NO

Magnetic proximity switches,
3-wire cable, D-slot



Mod.
CSD-D-334
CSD-D-334-5

Magnetic proximity switches,
3-wire cable, D-slot with 90° cable



Mod.
CSD-H-334
CSD-H-334-5

Magnetic proximity switches, male
M8 3-pin conn., D-slot, straight



Mod.
CSD-D-364

Magnetic proximity switches, male
M8 3-pin conn., D-slot, 90°



Mod.
CSD-H-364

Compact parallel grippers with T-guide Series CGSP

Single and double acting, magnetic, self-centering
Size: 20, 25, 32, 40

PNEUMATIC SYMBOLS



Mod.			
CGSP-20	CGSP-25	CGSP-32	CGSP-40
CGSP-20-NC	CGSP-25-NC	CGSP-32-NC	CGSP-40-NC
CGSP-20-NO	CGSP-25-NO	CGSP-32-NO	CGSP-40-NO

CODING EXAMPLE

CGSP	-	20	-	NC	-	EX
------	---	----	---	----	---	----

CGSP	SERIES	
20	SIZE 20 25 32 40	
NC	FUNCTIONING = double acting NO = single acting, normally open NC = single acting, normally closed	PNEUMATIC SYMBOLS PNZ1 PNZ3 PNZ2
EX	Add EX to order the certified ATEX version	

Magnetic sensors fixing kit

Supplied with:
- fixing screws (M)
- flange (L)

Mod.
M-CGSP-20
M-CGSP-25
M-CGSP-32
M-CGSP-40



Inductive sensors fixing kit

Supplied with:
- fixing screws (S)
- setting screws (Q - R)
- flange (P)

Mod.
I-CGSP-20
I-CGSP-25
I-CGSP-32
I-CGSP-40



Wide opening parallel grippers Series CGLN

Double acting, magnetic, self-centering
Size: 10, 16, 20, 25, 32

PNEUMATIC SYMBOL



Mod.				
CGLN-10-020	CGLN-16-030	CGLN-20-040	CGLN-25-050	CGLN-32-070
CGLN-10-040	CGLN-16-060	CGLN-20-080	CGLN-25-100	CGLN-32-120
CGLN-10-060	CGLN-16-080	CGLN-20-100	CGLN-25-120	CGLN-32-160

CODING EXAMPLE

CGLN	-	20	-	040
------	---	----	---	-----

CGLN	SERIES	PNEUMATIC SYMBOL PNZ1
20	SIZE 10 16 20 25 32	
040	STROKE	

Three-jaw grippers with T-guide Series CGZT

Single and double acting, magnetic, self-centering
Size: 40, 50, 64, 80, 100, 125, 160

PNEUMATIC SYMBOLS



CODING EXAMPLE

CGZT	-	050	-	NC	-	W	EX
------	---	-----	---	----	---	---	----

CGZT	SERIES	
050	SIZE	
	040	
	050	
	064	
	080	
	100	
	125	
	160	
NC	FUNCTIONING	PNEUMATIC SYMBOLS
	= double acting	PNZ1
	NO = single acting, normally open	PNZ3
	NC = single acting, normally closed	PNZ2
W	VERSION	
	= standard	
	W = high temperatures (130°C) - non magnetic	
EX	Add EX to order the certified ATEX version	

Mod.			
CGZT-040	CGZT-064	CGZT-100	CGZT-160
CGZT-040-NC	CGZT-064-NC	CGZT-100-NC	CGZT-160-NC
CGZT-040-NO	CGZT-064-NO	CGZT-100-NO	CGZT-160-NO
CGZT-050	CGZT-080	CGZT-125	
CGZT-050-NC	CGZT-080-NC	CGZT-125-NC	
CGZT-050-NO	CGZT-080-NO	CGZT-125-NO	

Part retaining unit

Mod.	
P-CGZT-040	
P-CGZT-050	P-CGZT-100
P-CGZT-064	P-CGZT-125
P-CGZT-080	P-CGZT-160



Three-jaw grippers with T-guide Series CGCN

Double acting, magnetic, self-centering
Size: 50, 64, 80, 100, 125

PNEUMATIC SYMBOL



CODING EXAMPLE

CGCN	-	050	-	EX
------	---	-----	---	----

CGCN	SERIES	
050	SIZE	PNEUMATIC SYMBOLS
	050	PNZ1
	064	
	080	
	100	
	125	
EX	Add EX to order the certified ATEX version	

Mod.
CGCN-050
CGCN-064
CGCN-080
CGCN-100
CGCN-125

Sprue grippers - Size 20 Series RPGA

Angular, not self-centering, single-acting, Normally Open
Models available: Flat Finger, Curved Finger, Short Finger, Flat Finger with sensor slot, Curved Finger with sensor slot

PNEUMATIC SYMBOL



CODING EXAMPLE

RPGA	-	20	-	A
-------------	---	-----------	---	----------

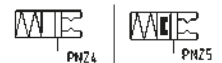
RPGA	SERIES
20	SIZE 20
A	TYPE OF CONSTRUCTION A = Flat finger B = Curved finger C = Short finger with mounting holes for extensions D = Flat finger for sensor E = Curved finger for sensor

Mod.	
RPGA-20-A	RPGA-20-D
RPGA-20-B	RPGA-20-E
RPGA-20-C	

Sprue grippers - Size 8, 12 Series RPGB

Angular, not self-centering, single-acting, Normally Open
Models: Flat Finger, Short Finger, Flat Finger with sensor

PNEUMATIC SYMBOLS



CODING EXAMPLE

RPGB	-	12	-	A
-------------	---	-----------	---	----------

RPGB	SERIES
12	SIZE 08 12
A	TYPE OF CONSTRUCTION A = Flat finger C = Short finger with mounting holes for extensions D = Flat finger with sensor mounted (CSD-D-364)

Mod.	
RPGB-08-A	RPGB-12-A
RPGB-08-C	RPGB-12-C
RPGB-08-D	RPGB-12-D

Robot tool changer Series RTC

New

Sizes: 50, 90, 150



- » High flexibility and adaptability
- » Constant monitoring of the locking device status
- » Enhanced efficiency and accuracy
- » High load capacity
- » Reduction of downtime

The Series RTC Tool Changer is the ideal solution for industrial applications that require an efficient and reliable device for a fast and secure changeover of tools (gripping or working systems). Series RTC is available in three sizes: 50, 90 and 150 and offers high reliability and robustness, handling loads of up to 50 kg, and guaranteeing excellent performance even under very demanding operating conditions. Thanks to its compact design, the Tool Changer can be easily integrated within industrial robots and cobots, improving the efficiency and productivity of production lines on the one hand while providing enhanced flexibility and quality of work on the other.

Using a special pneumatically operated accessory, the Tool Changer automates the opening and closing of the locking system, eliminating the need for this to be done manually by an operator. This makes the tool changing process faster and more accurate, reducing human error to a minimum and guaranteeing a more reliable system. Furthermore, the inclusion of magnetic proximity switches and inductive sensors makes it possible to monitor the status of the device and the tools associated with it. This avoids possible malfunctions, ensuring improved safety and system reliability.

GENERAL DATA

Size	50	90	150
Medium	Compressed air according to ISO 8573-1:2010 [7:4:4]	Compressed air according to ISO 8573-1:2010 [7:4:4]	Compressed air according to ISO 8573-1:2010 [7:4:4]
Operating pressure	-1 ÷ 6 bar	-1 ÷ 6 bar	-1 ÷ 6 bar
Operating temperature	5 ÷ 60 °C	5 ÷ 60 °C	5 ÷ 60 °C
Max payload	5 kg	20 kg	50 kg
Pneumatic connections	4	8	10
Tool changer (robot)	RTC-50-R (103 g)	RTC-90-R (318 g)	RTC-150-R (1123 g)
Tool changer (gripper)	RTC-50-T	RTC-90-T	RTC-150-T

CODING EXAMPLE

RTC	-	50	-	T
------------	---	-----------	---	----------

RTC	SERIES
50	SIZE 50 90 150
T	VERSION T = tool R = robot

size 50



Mod.
RTC-50

size 90



Mod.
RTC-90

size 150



Mod.
RTC-150

Pneumatic actuator for RTC tool changer - size 90

Allows to automate the changeover process with a minimal increase in thickness. Optional inductive sensors (piston's position) and proximity switches to mount on the gripper.



Mod.
A-RTC-90

Pneumatic actuator for RTC tool changer - size 150

Allows to automate the changeover process with a minimal increase in thickness. Optional inductive sensors (piston's position) and proximity switches to mount on the gripper.



Mod.
A-RTC-150

Electrical connection kit

I/O connection through 16 spring pins



Plate

Tool fixing screws included



Inductive sensor holder Ø3

Accessory to fix the inductive sensor that detects the presence of the tool.

The supply includes:
fixing screws
Sensor not included in the kit.



Inductive sensor holder Ø3

Accessory to fix the inductive sensor that detects the proper closure of the locking device.

The supply includes:
fixing screws
Sensor not included in the kit.



Flat suction pads (round) Series VTCF

Universal suction pads in NBR or Silicone.
Diameters from 3.5 to 95 mm with thread size M3, M5, G1/8, G1/4, both male and female.



CODING EXAMPLE

VT	C	F	-	0035	N	-	M3	M
-----------	----------	----------	----------	-------------	----------	----------	-----------	----------

VT	SERIES VT = Suction pad
C	SHAPE C = round
F	VERSION F = flat
0035	DIAMETERS 0035 = 3,5 mm - 0050 = 5,0 mm - 0080 = 8,0 mm - 0100 = 10,0 mm - 0150 = 15,0 mm - 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm 0350 = 35,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm - 0600 = 60,0 mm - 0800 = 80,0 mm - 0950 = 95,0 mm
N	MATERIALS N = NBR - S = Silicone
M3	THREAD SIZE M3 = M3 - M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Flat suction pads (oval) Series VTOF

Flat suction pads in NBR or Silicone.
Diameters from 4x2 to 90x30 mm with thread size M3, M5, G1/8, G1/4, both male and female.



CODING EXAMPLE

VT	O	F	-	0040-020	N	-	M3	M
-----------	----------	----------	----------	-----------------	----------	----------	-----------	----------

VT	SERIES VT = suction pad
O	SHAPE O = oval
F	VERSION F = flat
0040-020	DIMENSIONS 40-020 = 4,0 x 2,0 mm - 0070-035 = 7,0 x 3,5 mm - 0150-050 = 15,0 x 5,0 mm - 0180-060 = 18,0 x 6,0 mm - 0300-100 = 30,0 x 10,0 mm - 0450-150 = 45,0 x 15,0 mm 0600-200 = 60,0 x 20,0 mm - 0750-250 = 75,0 x 25,0 mm - 0900-300 = 90,0 x 30,0 mm
N	MATERIALS N = NBR - S = Silicone
M3	THREAD SIZE M3 = M3 - M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (round) Series VTCL - 1,5 folds

Series VTCL bellows suction pads available in NBR or Silicone.
Diameters from 4 to 53 mm with thread size M3, M5, G1/8, G1/4, both male and female.



CODING EXAMPLE

VT	C	L	-	040	N	-	M5	M
-----------	----------	----------	----------	------------	----------	----------	-----------	----------

VT	SERIES VT = Suction pad
C	SHAPE C = round
L	VERSION L = 1,5 folds
040	DIAMETERS 040 = 4,0 mm - 60 = 6,0 mm - 110 = 11,0 mm - 140 = 14,0 mm - 160 = 16,0 mm - 200 = 20,0 mm - 250 = 25,0 mm - 330 = 33,0 mm - 430 = 43,0 mm - 530 = 53,0 mm
N	MATERIALS N = NBR - S = Silicone
M5	THREAD SIZE M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (round) Series VTCN - 2,5 folds

Series VTCN bellows suction pads, available in NBR or Silicone.
Diameters from 3 to 52 mm with thread size M3, M5, G1/8, G1/4, both male and female.



CODING EXAMPLE

VT	C	N	-	030	N	-	M5	M
-----------	----------	----------	----------	------------	----------	----------	-----------	----------

VT	SERIES VT = Suction pad
C	SHAPE C = round
N	VERSION N = 2,5 folds
030	DIAMETERS 030 = 3,0 mm - 040 = 4,0 mm - 050 = 5,0 mm - 070 = 7,0 mm - 090 = 9,0 mm - 120 = 12,0 mm - 140 = 14,0 mm - 180 = 18,0 mm - 200 = 20,0 mm - 250 = 25,0 mm 320 = 32,0 mm - 420 = 42,0 mm - 520 = 52,0 mm
N	MATERIALS N = NBR - S = Silicone
M5	THREAD SIZE M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Flat suction pads Series VSCF

Universal suction pads in NBR or Silicone.
Diameters from 1 to 100 mm with thread size M3, M5, G1/8, G1/4, both male and female.



CODING EXAMPLE

VS	C	F	-	0010	N	-	M3	M
-----------	----------	----------	----------	-------------	----------	----------	-----------	----------

VS	SERIES VS = Suction pad
C	SHAPE C = round
F	VERSION F = flat
0010	DIAMETERS 0010 = 1,0 mm - 0015 = 1,5 mm - 0020 = 2,5 mm - 0030 = 3,0 mm - 0040 = 4,0 mm - 0050 = 5,0 mm - 0060 = 6,0 mm - 0070 = 7,0 mm - 0080 = 8,0 mm 0090 = 9,0 mm - 0100 = 10,0 mm - 0120 = 12,0 mm - 0150 = 15,0 mm - 0180 = 18,0 mm - 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm - 0350 = 35,0 mm 0400 = 40,0 mm - 0500 = 50,0 mm - 0600 = 60,0 mm - 0700 = 70,0 mm - 0800 = 80,0 mm - 0900 = 90,0 mm - 1000 = 100,0 mm
N	MATERIALS N = NBR - S = Silicone
M3	THREAD SIZE M3 = M3 - M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (oval) for Packaging Series VPOL - 1,5 folds

Suction pads in Elastodur ED-65 or Silicone.
Dimensions from 60x20 to 100x40 mm with thread size G1/8 and G1/4, both male and female.



CODING EXAMPLE

VP	O	L	-	0350-150	S	-	G1/8	M
-----------	----------	----------	----------	-----------------	----------	----------	-------------	----------

VP	SERIES VP = Suction pad
O	SHAPE O = oval
L	VERSION L = 1,5 folds
0350-150	DIAMETERS 0350-150 = 35,0 x 15,0 mm - 0600-200 = 60,0 x 20,0 mm - 0600-250 = 60,0 x 25,0 mm - 0800-350 = 80,0 x 35,0 mm - 1000-400 = 100,0 x 40,0 mm
S	MATERIALS S = Silicone - E = Elastodur
G1/8	THREAD SIZE 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (round) for Packaging Series VPCL - 1,5 folds

Suction pads in Elastodur ED-65.

Diameters from 4 to 80 mm with thread size M5, G1/8 and G1/4, both male and female.



CODING EXAMPLE

VP	C	L	-	0100	E	-	M5	M
-----------	----------	----------	----------	-------------	----------	----------	-----------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
L	VERSION L = 1,5 folds
0100	DIAMETERS 0100 = 10,0 mm - 0150 = 15,0 mm - 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm - 0600 = 60,0 mm - 0800 = 80,0 mm
E	MATERIALS E = elastodur
M5	THREAD SIZE M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (round) for Packaging Series VPCM - 2,5 folds

Suction pads in Elastodur ED-65.

Diameters from 20 to 50 mm with thread size G1/8 and G1/4, both male and female.



CODING EXAMPLE

VP	C	M	-	0200	E	-	G1/8	M
-----------	----------	----------	----------	-------------	----------	----------	-------------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
M	VERSION M = 1,5 folds
0200	DIAMETERS 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm
E	MATERIALS E = elastodur
G1/8	THREAD SIZE 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Bellows suction pads (round) for Packaging Series VPCN - 2,5 folds

Suction pads in Silicone.
Diameters from 15 to 50 mm with thread size G1/8, G1/4, G3/8 and G1/2, both male and female.



CODING EXAMPLE

VP	C	N	-	0150	S	-	G1/8	M
-----------	----------	----------	----------	-------------	----------	----------	-------------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
N	VERSION N = 2,5 folds
0150	DIAMETERS 0150 = 15,0 mm - 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm
S	MATERIALS S = Silicone
G1/8	THREAD SIZE 1/8 = G1/8 - 1/4 = G1/4 - 1/2 = G1/2 - 3/8 = G3/8
M	THREAD M = male - F = female

Bellows suction pads (round) for Packaging Series VPCO - 4,5 folds

Suction pads in Silicone.
Diameters from 30 to 50 mm with thread size G1/8, G1/4 and G3/8, both male and female.



CODING EXAMPLE

VP	C	O	-	0300	S	-	G1/8	M
-----------	----------	----------	----------	-------------	----------	----------	-------------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
O	VERSION O = 4,5 folds
0300	DIAMETERS 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm
S	MATERIALS S = Silicone
G1/8	THREAD SIZE 1/8 = G1/8 - 1/4 = G1/4 - 1/2 = G1/2 - 3/8 = G3/8
M	THREAD M = male - F = female

Bellows suction pads (round) for Packaging Series VPCQ - 4,5 folds

Suction pads in Silicone.

Diameters from 20 to 50 mm with thread size G1/8, G1/4 and G3/8, both male and female.



CODING EXAMPLE

VP	C	Q	-	0200	S	-	G1/8	M
-----------	----------	----------	----------	-------------	----------	----------	-------------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
Q	VERSION Q = 4,5 folds
0200	DIAMETERS 0200 = 20,0 mm - 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm
S	MATERIALS S = Silicone
G1/8	THREAD SIZE 1/8 = G1/8 - 1/4 = G1/4 - 1/2 = G1/2 - 3/8 = G3/8
M	THREAD M = male - F = female

Flat suction pads (round) for Packaging Series VPCF

Suction pads in Elastodur ED-65.

Diameters from 1 to 65 mm with thread size M5, G1/8 and G1/4, both male and female.



CODING EXAMPLE

VP	C	F	-	0100	E	-	M5	M
-----------	----------	----------	----------	-------------	----------	----------	-----------	----------

VP	SERIES VP = Suction pad
C	SHAPE C = round
F	VERSION F = flat
0100	DIAMETERS 0100 = 10,0 mm - 0150 = 15,0 mm - 0200 = 20,0 mm - 0250 = 25,0 mm - 0300 = 30,0 mm - 0400 = 40,0 mm - 0500 = 50,0 mm - 0600 = 60,0 mm
E	MATERIALS E = Elastodur
M5	THREAD SIZE M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
M	THREAD M = male - F = female

Basic ejectors Series VEB

Basic ejectors with no moving parts, based on the Venturi principle.
Version "L" for porosive workpieces.
Version "H" for high vacuum value.



CODING EXAMPLE

VEB	-	05	H
VEB	SERIES VEB = Vacuum ejector		
05	NOZZLE DIAMETER 05 = 0,5 mm - 07 = 0,7 mm - 10 = 1 mm - 15 = 1,5 mm - 20 = 2 mm - 25 = 2,5 mm - 30 = 3 mm		
H	SUCTION TYPE H = high vacuum - L = high suction rate		

Basic ejectors Series VEBL

Basic ejectors in technopolymer without moving parts, based on the Venturi principle.
Different sizes available, with internal nozzle from 0,5 to 2,5 mm and with suction rate from 8 to 207 l/min.



CODING EXAMPLE

VEBL	-	10H	-	T2
VEBL	SERIES VEBL = Vacuum ejector			
10H	NOZZLE DIAMETER 05H = 0,5 mm - 07H = 0,7 mm - 10H = 1 mm - 15H = 1,5 mm - 20H = 2 mm - 25H = 2,5 mm			
T2	TYPE OF CONNECTION (ON SUPPLY SIDE) T1 = plier - tube Ø4 - T2 = plier - tube Ø6 - T3 = plier - tube Ø8			

Accessories VEBL-ST

Mod.
VEBL-ST



Accessories VEBL-PCF

Mod.
VEBL-PCF



Inline ejectors Series VED

Vacuum ejectors without moving parts, based on the Venturi principle, used for direct installation on suction pads.



CODING EXAMPLE

VED	-	05
VED	SERIES VED = Vacuum ejectors	
05	NOZZLE DIAMETER 05 = 0,5 mm 07 = 0,7 mm 09 = 0,9 mm	

Inline ejectors Series VEDL

Vacuum compact ejectors in technopolymer without moving parts, based on the Venturi principle, used for direct installation on suction pads. Available in two sizes with internal nozzle of 0,5 and 0,7 mm and with suction rate from 8 to 16 l/min.



CODING EXAMPLE

VEDL	-	05	-	T1
VEDL	SERIES VEDL = Vacuum ejector			
05	NOZZLE DIAMETER 05 = 0,5 mm 07 = 0,7 mm			
T1	TYPE OF CONNECTION (ON SUPPLY SIDE) T1 = plier - tube Ø4			

Compact ejectors Series VEC

Vacuum generators with integrated valves and monitoring system.
Possibility to command suction and blow-off individually without using external valves.



CODING EXAMPLE

VEC	-	10	C	2	-	RD
------------	----------	-----------	----------	----------	----------	-----------

VEC	SERIES VEC = Vacuum ejector
10	NOZZLE DIAMETER 10 = 1,0 mm 15 = 1,5 mm 20 = 2,0 mm 25 = 2,5 mm
C	VALVE FUNCTION C = NC (suction OFF when not activated) A = NO (suction ON when not activated)
2	VERSION 2 = with Blow-off valve
RD	VERSION * RD = with air saving system and digital vacuum switch (with display). It is supplied complete with connectors and cables. * RE = with air saving system and electronic vacuum switch. It is supplied complete with connectors and cables. VD = without air saving system, digital vacuum switch (with display) VE = without air saving system, with electronic vacuum switch

* The air saving circuit, where used, switches the suction signal to "ON" apart from the fact that the ejector is NC or NO; this means that, in order to switch the internal loop back to "OFF", it is necessary to activate the signal on the coil controlling it (green cable).

Connector Mod. 121-8.. for Mod. VEC-10 and VEC-15

Mod.
121-803
121-806
121-810
121-830



Connector Mod. 126-... DIN 43650 pin spacing 8 mm

For Mod. VEC-20 and VEC-25

Mod.
126-550-1
126-800
126-701



Circular M8 4-pole connectors, Female

With PU sheathing, non shielded cable
Protection class: IP65

Mod.
CS-DF04EG-E200
CS-DF04EG-E500
CS-DR04EG-E200
CS-DR04EG-E500



Compact ejectors Series VEM

Miniaturized vacuum generators with integrated valves and monitoring system.
Possibility to command suction and blow-off individually without using external valves.



CODING EXAMPLE

VEM	-	05	C	2	-	VE
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VEM	SERIES VEM = Vacuum ejector
05	NOZZLE DIAMETER 05 = 0,5 mm 07 = 0,7 mm 10 = 1,0 mm
C	VALVE FUNCTION C = NC (suction OFF when not activated) A = NO (suction ON when not activated)
2	VERSION 2 = with Blow-off valve
VE	VALVE TYPE VE = without air saving system, with electronic vacuum switch

Connector Mod. 121-8.. for Mod. VEC-10 and VEC-15

Mod.
121-803
121-806
121-810
121-830



Circular M8 4-pole connectors, Female

Protection class: IP65
Materials: PU non shielded cable

Mod.
CS-DF04EG-E200
CS-DF04EG-E500
CS-DR04EG-E200
CS-DR04EG-E500



Compact ejectors Series VES

Compact vacuum generators with a high suction speed and reduced air consumption.
Nozzle diameter: 1.0 - 1.5 mm



CODING EXAMPLE

VES	-	10	NC	-	S
------------	---	-----------	-----------	---	----------

VES	SERIES VES = Compact ejector
10	NOZZLE DIAMETER 10 = 1.0 mm 15 = 1.5 mm
NC	VALVE FUNCTION NC = Normally Closed (at rest, no vacuum generation) NO = Normally Open (at rest, vacuum is present)
S	VERSION S = with air saving circuit I = with air saving circuit and I/O Link communication B = without air saving circuit

VACUUM COMPONENTS

5

Y-cable with straight M12 - 4 pin connectors


Cable for power supply and control of blow-off and suction valves



Mod.
SCP-CS-Y-A

Cable with straight M12 - 5 pin connectors

Cable for power supply and control of blow-off and suction valves, single connector



Mod.
CS-LW05HB-E100
CS-LW05HB-E200

Cable with IP40 flying leads

Cable for power supply of suction and blow-off valves



Mod.
121-830P

Cable with straight M12 - 5 pin connector

Cable for power supply and control of blow-off and suction valves, single connector



Mod.
CS-LF05HB-C500

Mounting brackets for DIN rail



Mod.
PCF-VES

Compact ejectors Series VEN

Compact vacuum generators with a high suction capacity and reduced air consumption.
Nozzle diameter: 2.0 - 2.5 mm



CODING EXAMPLE

VEN	-	20	NC	-	S
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VEN	SERIES VEN = Vacuum ejector
20	NOZZLE DIAMETER 20 = 2.0 mm 25 = 2.5 mm
NC	VALVE FUNCTION NC = Normally Closed (at rest, no vacuum generation) NO = Normally Open (at rest, vacuum is present)
S	VERSION S = with air saving circuit I = with air saving circuit and I/O Link communication B = without air saving circuit

Y-cable with straight M12 - 4 pin connectors

Cable for power supply and control of blow-off and suction valves

Mod.
SCP-CS-Y-A



Y-cable with straight M12 - 5 pin connectors

Cable for power supply and control of blow-off and suction valves

Mod.
SCP-CS-Y-B



Cable with straight M12 - 5 pin connector

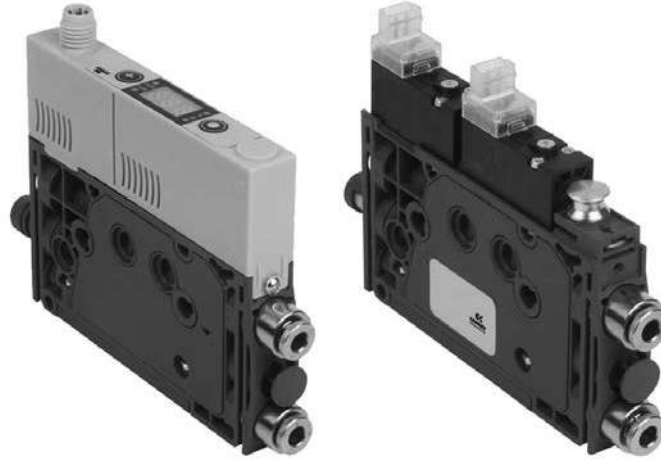
Cable for power supply and control of blow-off and suction valves, single connector

Mod.
CS-LF05HB-CS00



Compact ejectors Series VEQ

Ultra-compact vacuum generators with a high suction capacity with contained dimensions.
Nozzle diameter: 0.5 - 0.7 - 1.0 mm



CODING EXAMPLE

VEQ	-	05	NC	-	S
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VEQ	SERIES VEQ = Vacuum ejectors
05	NOZZLE DIAMETER 05 = 0,5 mm 07 = 0,7 mm 10 = 1,0 mm
NC	VALVE FUNCTION C = NC A = NO
S	VERSION S = Saving of compressed air I = (Compressed air saving + I/O LINK) B = Base

Cable with 90°, M8 / 6 pin connector

Cable for power supply and control of blow-off and suction valves and IO-Link



Cable with 90° M8 / 6 pin - straight M12 / 5 pin connector

Cable for power supply and control of blow-off and suction valves and IO-Link



Cable with straight M8 / 6 pin connector

Cable for power supply and control of blow-off and suction valves and IO-Link



Y-cable with straight and 90°, M12 / 5 pin and M8 / 6 pin connectors

Cable for power supply and control of blow-off and suction valves and IO-Link



Connector with cables

Cable for power supply of suction and blow-off valves



Mounting bracket for DIN rail



Mounting bracket for DIN rail Open Frame



Flexible suction pad mountings Series NPF

The vulcanisation provides flexibility in all directions.
Thread G1/4.



CODING EXAMPLE

NPF	-	FM	-	1/4	-	M10 X 1,25
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NPF	SERIES NPF = Flexible suction pad mountings
FM	THREAD VERSION FM = G1 Female / G2 Male
1/4	FEMALE THREAD G1 1/4 = G1/4
M10x1,25	MALE THREAD G2 M10x1,25 = M10x1,25 1/4 = G1/4

Spring plungers Series NPM and NPR (non rotating)

These spring plungers are used in situations where significant height differences of the workpiece have to be compensated for.
Thread size M3, M5, G1/8, G1/4, plunger stroke length from 5 to 75 mm.



CODING EXAMPLE

NPM	-	FM	-	1/4	-	75
------------	---	-----------	---	------------	---	-----------

NPM	SERIES NPM = spring plunger NPR = spring plunger - non-rotating
FM	THREAD VERSION FM = female / male - FF = female / female
1/4	THREAD M3 = M3 - M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4
75	COMPENSATION STROKE 05 = 5 mm 10 = 10 mm 15 = 15 mm 20 = 20 mm 25 = 25 mm 50 = 50 mm 75 = 75 mm

Check valves Series VNV

These check valves are mainly used on vacuum gripper systems containing multiple suction pads in order to shut off individual suction pads which are not covered.
Thread size M5, G1/8, G1/4, G3/8, G1/2.



CODING EXAMPLE

VNV	-	MF	-	M5
------------	---	-----------	---	-----------

VNV	SERIES VNV = Check valve
MF	THREAD VERSION MF= G1 male / G2 female FM = G1 female / G2 male
M5	THREAD M5 = M5 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 (MF version only) 1/2 = G1/2

Inline vacuum filters Series FVD

For use in vacuum systems with minor to medium levels of dirt.
Direct mounting on the suction pad.



CODING EXAMPLE

FVD	-	4/2	-	50
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FVD	SERIES FVD = inline filter
4/2	CONNECTIONS 4/2 = tube 4 6/4 = tube 6 8/6 = tube 8
50	FILTER ELEMENT 50 = 50 µm

Vacuum cup filters Series FVT

Used as pre-filters and fine filters for air with varying amounts of contamination, for the protection of the vacuum generator. Mounted as protection for the ejector.

PNEUMATIC SYMBOL



CODING EXAMPLE

FVT	-	FF	-	1/4	-	80
FVT	SERIES FVT = cup filter					
FF	THREAD SIZE FF = female-female					
1/4	CONNECTIONS 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4					
80	FILTER ELEMENT 80 = 80 µm					

Mounting foot bracket

The mod. FVT-FF-1/8-80-B is used on cup filters with ports G1/8, G1/4, G3/8 e G1/2.
The mod. FVT-FF-3/4-80-B is used on cup filters with ports G3/4.

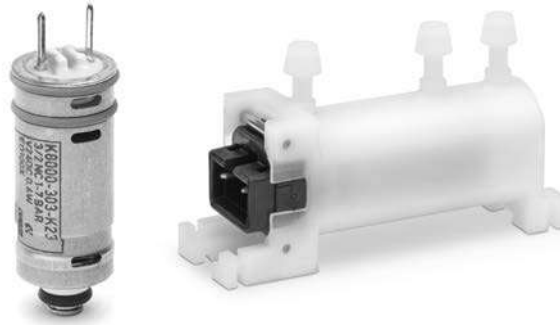
Mod.
FVT-FF-1/8-80-B
FVT-FF-3/4-80-B



Direct acting solenoid valves

Series K8 - K8X

2/2-way - Normally Closed (NC) and Normally Open (NO)
 3/2-way - Normally Closed (NC) and Normally Open (NO)
 3/2-way - Universal (UNI)



Thanks to their particular design these valves can be used in applications where very compact solutions are required as well as high performances. Series K8 is used to control actuators or very small devices and it is suitable for portable equipments thanks to low power consumption, reduced weight and dimensions.

The universal (UNI) version enables to mix two different gaseous fluids or to select the path of the gaseous fluid in the pneumatic circuit.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 2/2 NO - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	cartridge seat in manifold / barb fittings for tube 4/2 - 4/2.5 - 5/3 mm
Orifice diameter	0.5 ... 0.7 mm
Flow efficient kv (l/min)	0.08 ... 0.15
Operating pressure	-1 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time (ISO 12238)	ON <10 ms - OFF <10 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - stainless steel - PBT
Seals	FKM
Internal parts	stainless steel - enamelled copper
ELECTRICAL FEATURES	
Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm - JST connector with 300 mm flying leads
Protection class	IP00
Special versions available on demand	

CODING EXAMPLE

K8	0	00	-	3	0	3	-	K	2	3
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K8	SERIES
0	VALVE VERSION 0 = cartridge valve X = cartridge valve with PBT body
00	BODY DESIGN 00 = cartridge valve without body 1A = valve with PBT body and barb fittings for tube Ø 4/2 mm 1B = valve with PBT body and barb fittings for tube Ø 4/2.5 mm 1C = valve with PBT body and barb fittings for tube Ø 5/3 mm
3	NUMBER OF WAYS - FUNCTIONS 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 2/2-way - NC 6 = 2/2-way - NO 7 = 3/2-way - UNI
0	SEALS MATERIAL 0 = FKM
3	ORIFICE DIAMETER 3 = Ø 0.5 mm (max pressure 7 bar) 5 = Ø 0.7 mm 6 = Ø 0.5 mm (max pressure 4 bar)
K	MATERIALS K = brass orifice
2	ELECTRICAL CONNECTION 2 = pins - pitch 4 mm 3 = JST connector with 300 mm flying leads
3	VOLTAGE - POWER CONSUMPTION 1 = 6 V DC - 0.6 W 2 = 12 V DC - 0.6 W 3 = 24 V DC - 0.6 W 5 = 5 V DC - 0.6 W 6 = 3 V DC - 0.6 W
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series K8 - K8X, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Pilot operated solenoid valves Series K8B

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)



Series K8B pilot operated solenoid valves represent the evolution of Series K8 which has been equipped with a flow amplifier. Their particular design makes these valves ideal for use in applications requiring very compact solutions and high flow.

Thanks to their low power consumption and light weight Series K8B solenoid valves are particularly suitable for use with portable equipment too.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO
Operation	pilot operated poppet type
Pneumatic connections	cartridge seat in manifold - M7 threads - on subbase
Orifice diameter	3.6 mm
Flow coefficient kv (l/min)	2.8
Operating pressure	1 ÷ 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [2:4:2], inert gas
Response time (ISO 12238)	ON <15 ms - OFF <15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - stainless steel - PBT - aluminium
Seals	FKM
Internal parts	stainless steel - enamelled copper
ELECTRICAL FEATURES	
Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm - JST connector with 300 mm flying leads
Protection class	IP00
Special versions available on demand	

CODING EXAMPLE

K8B	C5	4	00	-	D4	3	2	N	-	N	00	1A	C003
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K8B	SERIES
C5	BODY DESIGN C0 = valve with aluminium body flanged connections C3 = valve with aluminium body threaded connections C5 = cartridge valve without body
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC 2 = 2/2-way - NO 4 = 3/2-way - NC 5 = 3/2-way - NO
00	PNEUMATIC CONNECTIONS 00 = cartridge seat in manifold 03 = M7 thread 18 = 2/2-way K8B-type interface 19 = 3/2-way K8B-type interface
D4	ORIFICE DIAMETER D4 = Ø 3.6mm
3	SEALS MATERIALS 3 = FKM
2	MATERIALS 1 = stainless steel - brass - aluminium (valve with body version) 2 = stainless steel - brass (cartridge version)
N	MANUAL OVERRIDE N = not foreseen
N	FIXING N = not foreseen P = screws for plastics M = screws for metal
00	OPTION 00 = no option
1A	ELECTRICAL CONNECTION 1A = pins - pitch 4 mm 1B = JST connector with 300 mm flying leads
C003	VOLTAGE - POWER CONSUMPTION C001 = 6 V DC (0.6 W) C002 = 12 V DC (0.6 W) C003 = 24 V DC (0.6 W)
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ³)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series K8B, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Media separated solenoid valves Series K8DV

2/2-way - Normally Closed (NC)



The K8DV solenoid valve was born to meet all the demands to shut off aggressive or heat sensitive fluids. Thanks to a fluid separation membrane, the fluid is isolated from all internal metal parts of the solenoid valve and avoids heating, even if minimum, generated by the solenoid positioned above.

To choose the most suitable model for a specific application, check the chemical compatibility of the medium to control with the available materials of body and seals.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC
Operation	direct acting with fluid separation membrane
Pneumatic connections	cartridge seat in manifold - on subbase
Orifice diameter	0.7 mm
Flow efficient kv (l/min)	0.1
Operating pressure	0 ÷ 2.1 bar (FKM/EPDM) / 0 ÷ 1.5 bar (FFKM)
Operating temperature	5 ÷ 50 °C (FKM/EPDM) / 20 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	ON ≤ 10 ms - OFF ≤ 15 ms
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PEEK
Seals	FKM - EPDM - FFKM

ELECTRICAL FEATURES

Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm
Protection class	IP00

CODING EXAMPLE

K8DV	C	00	-	5	0	5	-	G	2	3
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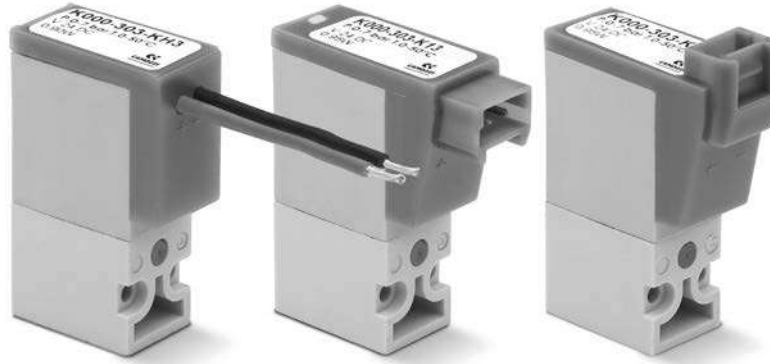
K8DV	SERIES
C	TYPE OF BODY C = cartridge version 0 = flanged version
00	NUMBER OF POSITIONS 00 = valve without housing
5	NUMBER OF WAYS - FUNCTIONS 5 = 2/2-way - NC
0	SEAL MATERIAL 0 = FKM 4 = EPDM 5 = FFKM
5	ORIFICE DIAMETER 5 = Ø 0.7 mm
G	BODY MATERIAL G = PEEK
2	ELECTRICAL CONNECTION 2 = pins - pitch 4 mm
3	VOLTAGE - POWER CONSUMPTION 1 = 6V DC - 0.6 W 2 = 12V DC - 0.6 W 3 = 24V DC - 0.6 W 4 = 3V DC - 0.6 W 5 = 5V DC - 0.6 W
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series K8DV, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series K

2/2-way - Normally Closed (NC)

3/2-way - Normally Closed (NC) and Normally Open (NO)



The Series K direct acting solenoid valves can be mounted on single sub-bases or manifolds. Thanks to the same mounting pad 2/2-way and 3/2-way versions can be installed on the same manifold. The manual override is available only for the 3/2-way versions.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.6 ... 1 mm
Flow coefficient kv (l/min)	0.12 ... 0.30
Operating pressure	0 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms - OFF <10 ms
Manual override	monostable - only for 3/2 versions
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PBT
Seals	NBR - FKM
Internal parts	stainless steel

ELECTRICAL FEATURES

Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - 300 mm flying leads
Protection class	IP50

Special versions available on demand

CODING EXAMPLE

K	0	00	-	3	0	3	-	K	2	3	
K	SERIES										
0	BODY DESIGN 0 = single sub-base (only M5) or interface 1 = manifold										
00	NUMBER OF POSITIONS 00 = interface 01 = single base (only M5) 02 + 99 = manifold number of positions										
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 1 = 2/2-way - NC 2 = 2/2-way - NC electric part revolved by 180° 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 3/2-way - NC electric part revolved by 180° 6 = 3/2-way - NO electric part revolved by 180°										
0	PORTS 0 = on subbase or manifold 2 = M5 side outlets										
3	ORIFICE DIAMETER 2 = Ø 0.6 mm 3 = Ø 0.65 mm 5 = Ø 1.0 mm										
K	MATERIALS F = PBT body - FKM poppet seal K = PBT body - HNBR poppet seal (only for 3/2-way versions)										
2	ELECTRICAL CONNECTION 1 = 90° connection with protection and led 2 = 90° connection with protection 3 = 90° connection B = in-line connection with protection and led C = in-line connection with protection D = in-line connection F = 300 mm flying leads with protection and led G = 300 mm flying leads with protection H = 300 mm flying leads										
3	VOLTAGE - POWER CONSUMPTION 1 = 6V DC - 1W 2 = 12V DC - 1W 3 = 24V DC - 1W										
	FIXING = fixing screws for plastic M = fixing screws for metal										
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²)										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series K, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series KL

- 2/2-way - Normally Closed (NC)
- 3/2-way - Normally Closed (NC) and Normally Open (NO)
- 3/2-way - Universal (UNI)



- » Application sectors:
 - Life Science
 - Industrial Automation
- » Compact design
- » M8 - 3 pin electric connection available
- » Monostable and bistable manual override

Series KL are miniaturised solenoid valves with a width of only 10 mm. Its compact design, reduced weight, and low energy consumption make the Series KL ideal for applications within confined spaces and with a limited power supply.

The body is designed in such a way it can be mounted both on manifold and on subbase and the valve is available in 2-way normally closed and in 3-way normally closed, open and universal version.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.6 ... 1.6 mm
Flow coefficient kv (l/min)	0.12 ... 0.50
Operating pressure	0 ÷ 2 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms - OFF <10 ms
Manual override	monostable or bistable - only for 3/2 versions
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	FKM
Internal parts	stainless steel - brass
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 W - 1.3/0.3 W - 4/1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - M8 connector mod. CS... (the M8 connection of the valve accepts polarity reversal)
Protection class	IP50 with connector 121-8... - IP65 with M8 connector

CODING EXAMPLE

KL	0	4	0	-	A6	3	A	Y	-	1	3	M
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KL	SERIES
0	BODY DESIGN 0 = 3/2 body - ISO 15218 A = 3/2 body - ISO 15218 - coil rotated by 180° 2 = 2/2 body C = 2/2 body - coil rotated by 180°
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way NC 4 = 3/2-way NC 5 = 3/2-way NO 6 = 3/2-way UNI
0	PORTS 0 = on subbase or manifold
A6	ORIFICE DIAMETER A6 = Ø 0.60 mm A8 = Ø 0.80 mm B1 = Ø 1.10 mm B2 = Ø 1.20 mm B3 = Ø 1.30 mm B6 = Ø 1.60 mm
3	SEAL MATERIAL 3 = FKM
A	BODY MATERIAL A = PBT
Y	MANUAL OVERRIDE 0 = not requested or not foreseen Y = monostable B = bistable
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led M = M8 - 3 pin connection
3	VOLTAGE - POWER CONSUMPTION 1 = 6 V DC - 1 W 2 = 12 V DC - 1 W 3 = 24 VDC - 1 W A = 6 V DC - 1.3/0.3 W B = 12 V DC - 1.3/0.3 W C = 24 VDC - 1.3/0.3 W 5 = 5 V DC - 4/1 W 6 = 6 VDC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4/1 W
M	FIXING M = fixing screws for metal P = fixing screws for plastic
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series KL, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series KLE

- 2/2-way - Normally Closed (NC)
- 3/2-way - Normally Closed (NC) and Normally Open (NO)
- 3/2-way - Universal (UNI)



- » Application sectors:
 - Life Science
 - Industrial Automation
- » Compact design
- » M8 - 3 pin electric connection available
- » Monostable and bistable manual override

Series KLE are miniaturised solenoid valves with a width of only 10 mm. The body is designed in such a way it can be mounted both on manifold and on subbase and the valve is available in 2-way normally closed and in 3-way normally closed, open and universal version.

The use of a longer coil allowed to increase the pressure values the valves can withstand.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.6 ... 1.6 mm
Flow coefficient kv (l/min)	0.12 ... 0.50
Operating pressure	0 ÷ 2 ... 9 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms - OFF <10 ms
Manual override	monostable or bistable - only for 3/2 versions
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	FKM
Internal parts	stainless steel - brass
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 W - 1.3/0.3 W - 4/1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - M8 connector mod. CS... (the M8 connection of the valve accepts polarity reversal)
Protection class	IP50 with connector 121-8... - IP65 with M8 connector

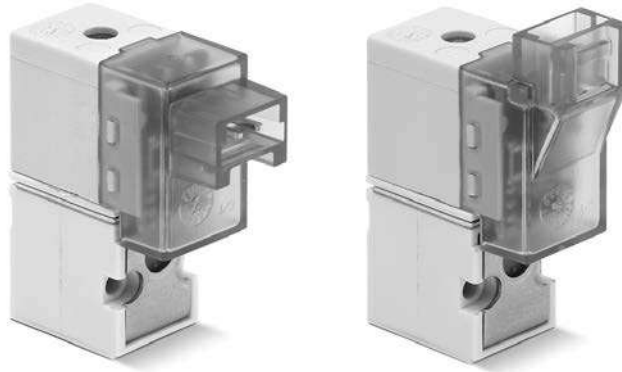
CODING EXAMPLE

KLE	0	4	0	-	A6	3	A	Y	-	1	3	M
KLE	SERIES											
0	BODY DESIGN 0 = 3/2 body - ISO 15218 A = 3/2 body - ISO 15218 - coil rotated by 180° 2 = 2/2 body C = 2/2 body - coil rotated by 180°											
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way NC 4 = 3/2-way NC 5 = 3/2-way NO 6 = 3/2-way UNI											
0	PORTS 0 = on subbase or manifold											
A6	ORIFICE DIAMETER A6 = Ø 0.60 mm A8 = Ø 0.80 mm B1 = Ø 1.10 mm B2 = Ø 1.20 mm B3 = Ø 1.30 mm B6 = Ø 1.60 mm											
3	SEAL MATERIAL 3 = FKM											
A	BODY MATERIAL A = PBT											
Y	MANUAL OVERRIDE 0 = not requested or not foreseen Y = monostable B = bistable											
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led M = M8 - 3 pin connection											
3	VOLTAGE - POWER CONSUMPTION 1 = 6 VDC - 1 W 2 = 12 VDC - 1 W 3 = 24 VDC - 1 W 6 = 6 VDC - 4/1 W 7 = 12 VDC - 4/1 W 8 = 24 VDC - 4/1 W											
M	FIXING M = fixing screws for metal P = fixing screws for plastic											
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²)											

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series KLE, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series KN and KN High Flow

3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)



The Series KN direct acting solenoid valves are available also in the high flow version (KN High Flow).

Thanks to its low energy consumption and to its compact design, the KN miniaturized solenoid valve can be used in industrial and scientific applications.

GENERAL DATA

TECHNICAL FEATURES

Function	3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.65 ... 1.1 mm
Flow coefficient kv (l/min)	0.15 ... 0.39
Operating pressure	0 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms - OFF <10 ms
Manual override	monostable
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PBT
Seals	NBR - FKM
Internal parts	stainless steel

ELECTRICAL FEATURES

Voltage	5 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1.3/0.25 ... 4/1 W (inrush/holding)
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8...
Protection class	IP50

Special versions available on demand

CODING EXAMPLE

KN	0	00	-	3	0	3	-	K	1	3	
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KN	SERIES
0	BODY DESIGN 0 = single valve
00	NUMBER OF POSITIONS 00 = interface
3	NUMBER OF WAYS - FUNCTIONS 3 = 3/2-way - NC 4 = 3/2-way - NO 7 = 3/2-way - UNI
0	PORTS 0 = ISO 15218 on subbase or manifold
3	ORIFICE DIAMETER 3 = \emptyset 0.65 mm 5 = \emptyset 1.1 mm - only for NC version with minimum pressure required to operate 6 = \emptyset 1.1 mm
K	MATERIALS F = PBT body - FKM poppet - FKM other seals K = PBT body - FKM poppet - NBR other seals
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 1.3/0.25 W 3 = 24 V DC - 1.3/0.25 W 5 = 5 V DC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4.1 W
	FIXING = fixing screws for plastic M = fixing screws for metal
	OPTIONS = standard OX2 = for use with oxygen (non volatile residual less than 33 mg/m ³)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series KN and KN High Flow, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Media separated solenoid valves Series KDV

2/2-way - Normally Closed (NC)

2/2-way - Normally Open (NO)

3/2-way - Universal (UNI)



The Series KDV are solenoid valves designed to control critical media such as aggressive, high purity liquids or gases or thermosensitive fluids. These valves prevent the controlled media from interacting with the internal mechanical part of the valve. The orifices are open or closed by a separation element on which acts a mechanism moved by a solenoid actuator.

To choose the most suitable model for a specific application, check the chemical compatibility of the medium with the available materials of body and seals.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting with fluid separation membrane
Pneumatic connections	flanged for subbase or manifold
Orifice diameter	0.8 ... 1.3 mm
Flow coefficient kv (l/min)	0.2 ... 0.4
Operating pressure	-0.95 ... 2.0 bar
Operating temperature	0 ÷ 50 °C (FKM/EPDM) / 10 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	ON ≤20 ms - OFF ≤20 ms
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PEEK
Seals	FKM - EPDM - FFKM

ELECTRICAL FEATURES

Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±5%
Power consumption	4/1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - 300 mm flying leads
Protection class	IP40 with connector

Special versions available on request

CODING EXAMPLE

KDV	1	6	0	-	B0	3	G	-	1	8	M
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KDV	SERIES
1	BODY DESIGN 1 = flanged body for sub-base
6	NUMBER OF WAYS - FUNCTION 1 = 2/2-way - NC 2 = 2/2-way - NO 6 = 3/2-way - UNI
0	PNEUMATIC CONNECTION 0 = on sub-base or manifold
B0	ORIFICE DIAMETER A8 = Ø 0.8 mm B0 = Ø 1.0 mm B3 = Ø 1.3 mm
3	SEAL MATERIAL 3 = FKM 4 = EPDM 5 = FFKM
G	BODY MATERIAL G = PEEK
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led F = 90° 300 mm flying leads with protection and led W = in-line 300 mm flying leads with protection and led
8	VOLTAGE - POWER CONSUMPTION 6 = 6 V DC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4/1 W
M	FIXING M = fixing screws
	OPTIONS = standard

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series KDV, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Media separated solenoid valves Series LDV

- 2/2-way - Normally Closed (NC)
- 2/2-way - Normally Open (NO)
- 3/2-way - Universal (UNI)



- » Suitable to be used with neutral or aggressive or heat sensitive fluids
- » Suitable for specific applications on medical and analytical equipment or instruments
- » Compact design

The Series LDV are solenoid valves designed to control critical media such as aggressive, high purity liquids or gases or thermosensitive fluids. These valves prevent the controlled media from interacting with the internal mechanical part of the valve. The orifices are open or closed by a separation element on which acts a mechanism moved by a solenoid actuator.

To choose the most suitable model for a specific application, check the chemical compatibility of the medium with the available materials of body and seals.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting with fluid separation membrane
Pneumatic connections	flanged for subbase or manifold
Orifice diameter	0.8 ... 1.6 mm
Flow coefficient kv (l/min)	0.3 ... 0.6
Operating pressure	-0.95 ... 5.0 bar
Operating temperature	0 ÷ 50 °C (FKM/EPDM) / 10 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	ON ≤20 ms - OFF ≤20 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PEEK
Seals	EPDM - FFKM
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±5%
Power consumption	4 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... -300 mm flying leads
Protection class	IP54 with connector
Special versions available on request	industrial standard form C (9.4 mm)

CODING EXAMPLE

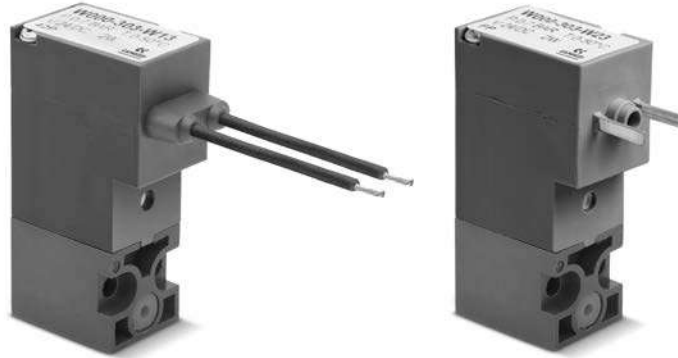
LDV	1	6	0	-	B2	4	G	-	1	8	M
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LDV	SERIES
1	BODY DESIGN 1 = flanged body for sub-base
6	NUMBER OF WAYS - FUNCTION 1 = 2/2-way - NC 2 = 2/2-way - NO 6 = 3/2-way - UNI
0	PNEUMATIC CONNECTION 0 = on sub-base or manifold
B2	ORIFICE DIAMETER A8 = Ø 0.8 mm B2 = Ø 1.2 mm B6 = Ø 1.6 mm
4	SEAL MATERIAL 4 = EPDM 5 = FFKM
G	BODY MATERIAL G = PEEK
1	ELECTRICAL CONNECTION 1 = industrial standard form C (9.4 mm)
8	VOLTAGE - POWER CONSUMPTION 6 = 6 V DC - 4 W 7 = 12 V DC - 4 W 8 = 24 V DC - 4 W
M	FIXING M = fixing screws
	OPTIONS = standard

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series LDV, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series W

3/2-way - Normally Closed (NC) and Normally Open (NO)



Series W direct acting solenoid valves are available as 3/2-way either NC or NO. Both versions can be mounted on single sub-bases or manifolds and they are equipped with a monostable manual override.

GENERAL DATA

TECHNICAL FEATURES

Function	3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.8 ... 1.5 mm
Flow coefficient kv (l/min)	0.21 ... 0.54
Operating pressure	0 ÷ 5 ... 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Manual override	monostable
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PBT
Seals	PU - NBR - FKM - EPDM
Internal parts	stainless steel

ELECTRICAL FEATURES

Voltage	12 ... 48 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	2 W - 1 W (24 V DC only)
Duty cycle	ED 100%
Electrical connection	connector DIN EN 175 301-803-C (8 mm) - 300 mm flying leads
Protection class	IP65 with connector

Special versions available on demand

CODING EXAMPLE

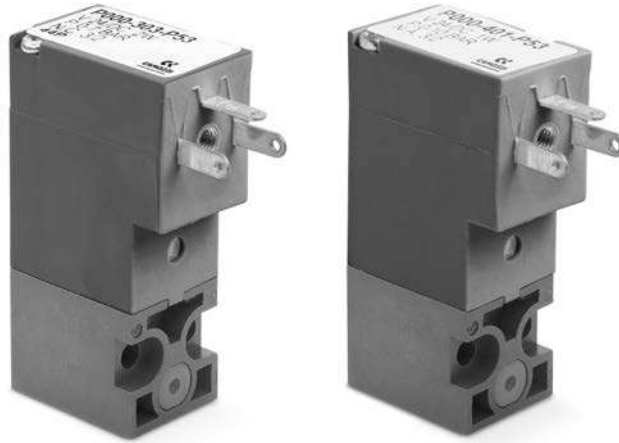
W	0	00	-	3	0	3	-	W	2	3	
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W	SERIES
0	BODY DESIGN 0 = single sub-base (only M5) or interface 1 = single manifold 2 = double manifold
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 = 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single sub-base 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 3/2-way - NC electric part revolved by 180° 6 = 3/2-way - NO electric part revolved by 180°
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
3	ORIFICE DIAMETER 1 = Ø 0.8 mm 3 = Ø 1.5 mm 5 = Ø 1.1 mm - NC versions 6 = Ø 1.5 mm - NC versions with voltage tolerance -25% ÷ +10% 5 = Ø 0.9 mm - NO versions
W	MATERIALS E = PBT body - EPDM seals F = PBT body - FKM seals W = PBT body - NBR - FKM - PU seals
2	ELECTRICAL CONNECTION 1 = 300 mm flying leads 2 = DIN EN 175 301-803-C (8 mm)
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 2 W 3 = 24 V DC - 1 W - NC Ø 0.8 mm version only 3 = 24 V DC - 2 W 4 = 48 V DC - 2 W
	FIXING = fixing screws for metal P = fixing screws for plastic
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series W, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series P

3/2-way - Normally Closed (NC) and Normally Open (NO)



Series P direct acting solenoid valves are available as 3/2-way, either NC or NO. Both versions can be mounted on single sub-bases or manifolds and they are equipped with a monostable manual override.

Please note that all Series P solenoid valves are supplied with direct current (DC). To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.8 ... 1.5 mm
Flow coefficient kv (l/min)	0.21 ... 0.54
Operating pressure	0 ÷ 3 ... 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Manual override	monostable
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	PU - NBR - FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 110 V AC 50/60 Hz - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 ... 2 W
Duty cycle	ED 100%
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

P	0	00	-	3	0	3	-	P	5	3	
P	SERIES										
0	BODY DESIGN 0 = single sub-base (M5 only) or interface 1 = single manifold 2 = double sided manifold										
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 = 99 = manifold number of positions										
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 3/2-way - NC electric part revolved by 180° 6 = 3/2-way - NO electric part revolved by 180°										
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets										
3	ORIFICE DIAMETER 1 = Ø 0.8 mm 3 = Ø 1.5 mm 5 = Ø 1.1 mm - NC versions 6 = Ø 1.5 mm - NC versions with voltage tolerance -25% ÷ +10% 5 = Ø 0.9 mm - NO versions										
P	MATERIALS E = PBT body - EPDM seals F = PBT body - FKM seals P = PBT body - NBR - FKM - PU seals										
5	ELECTRICAL CONNECTION 5 = industrial standard form C (9.4 mm)										
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 2 W (1 W only for NC - Ø 0.8 mm version) 3 = 24 V DC - 2 W (1 W only for NC - Ø 0.8 mm version) 4 = 48 V DC - 2 W 6 = 110 V DC - 2 W B = 24 V 50/60 Hz - 2 W C = 48 V 50/60 Hz - 2 W D = 110 V 50/60 Hz - 2 W										
	FIXING = fixing screws for metal P = fixing screws for plastic										
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²)										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series P, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series PL

2/2-way - Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)



- » Application sectors:
 - Industrial Automation
 - Life Science
 - Transportation
- » Mounting on a single base (M5 connections) or on manifold (M5 or fittings Ø3 and Ø4)

Series PL solenoid valves are available in the normally closed, normally open and universal versions. They can be mounted on single sub-bases or manifolds

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NO - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.8 ... 1.6 mm
Flow coefficient kv (l/min)	0.30 ... 0.62
Operating pressure	0 ÷ 3.5 ... 10 bar
Operating temperature	0 ÷ 50 °C (FKM) / -50 ÷ 50 °C (low temperature NBR on demand)
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time	ON <10 ms - OFF <15 ms
Manual override	mono/bistable - PBT 3/2 versions only
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - PBT - PPS
Seals	FKM - NBR - EPDM (on demand)
Internal parts	brass - stainless steel
ELECTRICAL FEATURES	
Voltage	6 ... 110 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1.2 ... 3 W
Duty cycle	ED 100%
Electrical connection	industry standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

PL	0	00	-	3	0	3	-	PL	2	3	
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PL	SERIES										
0	BODY DESIGN 0 = single sub-base (M5 only) or interface 1 = manifold - valves single side 2 = manifold - valves double side										
00	NUMBER OF POSITIONS 00 = ISO 15218 or Series PD interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions										
3	NUMBER OF WAYS - FUNCTIONS 0 = manifolds or single base 9 = 2/2-way - NO A = 2/2-way - NO electric part revolved by 180° 3 = 3/2-way - NC 5 = 3/2-way - NC electric part revolved by 180° 4 = 3/2-way - NO 6 = 3/2-way - NO electric part revolved by 180° B = 3/2-way - NO IN-LINE* C = 3/2-way - NO IN-LINE* electric part revolved by 180° 7 = 3/2-way - UNI 8 = 3/2-way - UNI electric part revolved by 180°										
0	VALVE PORTS 0 = ISO 15218 interface - 3/2-way B = series PD interface - 2/2-way MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - front outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets										
3	ORIFICE DIAMETER B = Ø 0.8 mm 1 = Ø 1.1 mm 3 = Ø 1.5 mm (NC version with pressure 4 ÷ 8 bar only) 5 = Ø 1.5 mm 6 = Ø 1.5 mm (NC version with pressure 0 ÷ 3.5 bar only) 7 = Ø 1.6 mm										
PL	MATERIALS PL = PBT body - FKM poppet seal - NBR other seals PF = PBT body - FKM seals SF = PPS body - FKM seals ST = PPS body - Low Temperature NBR seals (on demand) BF = nickel-plated brass body - FKM seals										
2	ELECTRICAL CONNECTION 2 = industrial standard form C (9.4 mm)										
3	VOLTAGE - POWER CONSUMPTION - OVERMOULDING MATERIAL 4 = 6 V DC - 1.2 W - PA 5 = 12 V DC - 1.2 W - PA 6 = 24 V DC - 1.2 W - PA 1 = 6 V DC - 2.7 W - PA 2 = 12 V DC - 2.7 W - PA 3 = 24 V DC - 2.7 W - PA 7 = 6 V DC - 1.2 W - PPS 8 = 12 V DC - 1.2 W - PPS 9 = 24 V DC - 1.2 W - PPS A = 6 V DC - 2.2 W - PPS B = 12 V DC - 2.2 W - PPS C = 24 V DC - 2.2 W - PPS H = 110 V DC - 3 W - PPS (can be combined with all PPS models)										
	FIXING = fixing screws for metal P = fixing screws for plastics										
	MANUAL OVERRIDE = not required or not applicable T = mono/bistable (push/turn type)										
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²)										

* 3/2 NO IN-LINE version: the position of the ports 1 - 2 - 3 is identical to 3/2 NC version

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series PL, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series PN

3/2-way - Normally Closed (NC)



Series PN direct acting solenoid valves are available as 3/2-way NC.

Please note that all Series PN solenoid valves are supplied with direct current (DC). To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES

Function	3/2 NC
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 12238 interface
Orifice diameter	0.8 mm
Flow coefficient kv (l/min)	0.19
Operating pressure	0 ÷ 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PBT
Seals	FKM - NBR
Internal parts	stainless steel

ELECTRICAL FEATURES

Voltage	24 ... 205 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 ... 2 W
Duty cycle	ED 100%
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector

Special versions available on demand

CODING EXAMPLE

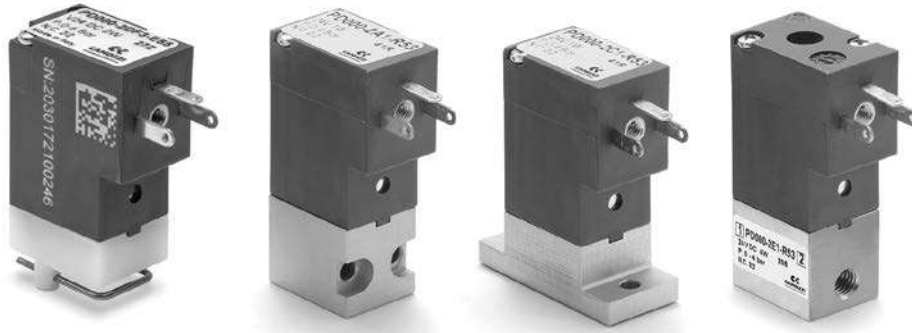
PN	0	00	-	3	0	1	-	P	5	3	
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PN	SERIES
0	BODY DESIGN 0 = single sub-base 1 = single manifold 2 = double sided manifold
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 = 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 3 = 3/2-way - NC
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
1	ORIFICE DIAMETER 1 = Ø 0.8 mm
P	MATERIALS P = PBT body - seals FKM - NBR
5	ELECTRICAL CONNECTION 5 = industrial standard form C (9.4 mm)
3	VOLTAGE - POWER CONSUMPTION 3 = 24 V DC - 1 W 4 = 48 V DC - 2 W 6 = 110 V DC - 2 W 7 = 205 V DC - 1.7 W
	FIXING = fixing screws for plastic M = fixing screws for metal

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series PN, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series PD

2/2-way - Normally Closed (NC)



The Series PD direct acting solenoid valves are available in the 2/2-way normally closed (NC) version. Pneumatic interfaces allow installation on manifolds in horizontal or vertical position. Also available with threaded connections.

Please note that all Series PD solenoid valves are supplied with direct current (DC). To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC
Operation	direct acting poppet type
Pneumatic connections	on subbase - M5 threads
Orifice diameter	0.8 ... 2.5 mm
Flow coefficient kv (l/min)	0.39 ... 1.93
Operating pressure	-0.9 ÷ 4 ... 12 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas - liquids (on demand)
Response time	<15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - anodized aluminium - POM
Seals	NBR - FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 24 V DC - other voltages on demand
Voltage tolerance	1 and 2 W ±10% - 4 W ±5%
Power consumption	1 ... 4 W
Duty cycle	ED 100% (1 and 2 W) - ED 50% (4W)
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

PD	0	00	-	2	A	1	-	R	5	3	
PD	SERIES										
0	BODY DESIGN 0 = single body										
00	NUMBER OF POSITIONS 00 = interface										
2	NUMBER OF WAYS - FUNCTIONS 2 = 2/2-way - NC										
A	MATERIAL - BODY CONNECTIONS A = aluminium body - lateral interface AR = aluminium body - lateral interface - electric part revolved by 180° C = aluminium body - bottom interface CR = aluminium body - bottom interface - electric part revolved by 180° DF = POM body - bottom interface DR = POM body - bottom interface - electric part revolved by 180° E = brass body - M5 threaded ports ER = brass body - M5 threaded ports - electric part revolved by 180°										
1	ORIFICE DIAMETER 1 = Ø 0.8 mm 2 = Ø 1.2 mm 3 = Ø 1.6 mm 4 = Ø 2.0 mm 5 = Ø 2.5 mm										
R	SEAL MATERIAL R = NBR F = FKM E = EPDM										
5	ELECTRICAL CONNECTION 5 = industrial standard form C (9.4 mm)										
3	VOLTAGE - POWER CONSUMPTION 1 = 12 V DC - 1 W 2 = 12 V DC - 2 W 3 = 24 V DC - 1 W 5 = 24 V DC - 2 W 8 = 24 V DC - 4 W										
	FIXING = with screws for metal P = with screws for plastics										
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²)										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series PD, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Media separated solenoid valves Series PDV

2/2-way - Normally Closed (NC)



Series PDV direct acting solenoid valve is available with several nominal diameters and in three different versions according to the electrical connection. Moreover, the fluid separation membrane protects the medium from extreme changes of temperature due to heating of the solenoid.

To choose the most suitable model for a specific application, check the chemical compatibility of the medium with the available materials of body and seals.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC
Operation	direct acting with fluid separation membrane
Pneumatic connections	on subbase
Orifice diameter	0.8 ... 2 mm
Flow coefficient kv (l/min)	0.25 ... 0.8
Operating pressure	0 ... 7 bar
Operating temperature	10 ÷ 50 °C (FKM/EPDM) / 20 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	≤ 15 ms
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PEEK
Seals	FKM - EPDM - FFKM

ELECTRICAL FEATURES

Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	2 W
Duty cycle	ED 100%
Electrical connection	industrial standard (9.4 mm), DIN EN 175 301-803-C (8 mm), 300 mm flying leads
Protection class	IP65 with connector

Special versions available on request

CODING EXAMPLE

PDV	C0	1	22	-	B7	3	G	N	-	M	00	4A	C023
PDV	SERIES												
C0	BODY DESIGN C0 = body with interface for subbase												
1	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC												
22	PNEUMATIC CONNECTIONS 22 = PDV-type interface, 2-way												
B7	ORIFICE DIAMETER A7 = Ø 0.8 mm B3 = Ø 1.2 mm B7 = Ø 1.6 mm C1 = Ø 2.0 mm												
3	SEAL MATERIAL 3 = FKM 4 = EPDM 5 = FFKM												
G	BODY MATERIAL G = PEEK												
N	MANUAL OVERRIDE N = not foreseen												
M	FIXING M = fixing screws for metal												
00	OPTIONS 00 = none												
4A	ELECTRICAL CONNECTION 3A = DIN EN 175 301-803-C (8 mm) 3C = DIN EN 175 301-803-C (8 mm) with coil rotated 180° 4A = industrial standard form C (9.4 mm) 4C = industrial standard form C (9.4 mm) (9,4 mm) with coil rotated 180° 7A = 300 mm flying leads 7C = 300 mm flying leads with coil rotated 180°												
C023	VOLTAGE - POWER CONSUMPTION C017 = 6 V DC - 2 W C020 = 12 V DC - 2 W C023 = 24 V DC - 2 W												
	OPTIONS = standard OX2 = for oxygen (non-volatile residue less than 33 mg / m ²)												

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series PDV, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Direct acting solenoid valves Series A

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)



Series A solenoid valves are of the direct acting type and can be used with dry or lubricated air. They are available in the 2/2 and 3/2-way versions with normally closed (NC) or normally open (NO) operation. As shown in the following tables, they are supplied in different versions according to the type of body, threaded ports and orifice. They can thus satisfy various operating and installation requirements.

The solenoid can be easily and quickly replaced without interfering with the pressurised part of the valve. On the same mechanical part different types of solenoids can be interchanged. The choice of solenoids determines the performance of the solenoid valve in terms of consumption and pressure.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	M5, G1/8, R1/8 threads - Ø4 fittings - CNOMO and manifold interface- Ø6 barb fittings
Orifice diameter	1.2 ... 2.5 mm
Flow coefficient kv (l/min)	0.62 ... 2.0
Operating pressure	-0.9 ... 15 bar
Operating temperature	0 ÷ 60 °C (-20 °C with dry air)
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time	ON <15 ms - OFF <25 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	nickel-plated brass - burnished brass - PA6 - PBT
Seals	HNBR, FKM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 380 V AC 50/60 Hz
Voltage tolerance	±10% (DC) / -15% ÷ +10% (AC)
Power consumption	3 ... 5 W (DC) / 3.5 ... 7 VA (AC)
Duty cycle	ED 100%
Insulation class	F (155°C)
Electrical connection	DIN EN 175 301-803-A - DIN EN 175 301-803-B
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

A	3	3	1	-	0	C	2	-	U7	7
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A	SERIES
3	BODY DESIGN 1 = 360° rotatable interface body (24x24 mm) 2 = fixed interface body (24x24 mm) 3 = threaded body 4 = threaded body with quick exhaust 5 = ISO interface body 6 = 360° rotatable interface body (16x16 mm) 7 = 360° rotatable interface body (21 mm) 8 = barb fittings connections body A = single manifold B = 2-part manifold C = 3-part manifold D = 4-part manifold E = 5-part manifold F = 6-part manifold G = 7-part manifold H = 8-part manifold K = 9-part manifold L = 10-part manifold M = 11-part manifold N = 12-part manifold P = 13-part manifold R = 14-part manifold S = 15-part manifold
3	NUMBER OF PORTS 2 = 2 ways 3 = 3 ways
1	FUNCTION 1 = NC - normally closed 2 = NO - normally open 3 = NO IN-LINE* - normally open
0	PORTS 0 = M5 1 = G1/8 3 = M5-R1/8 4 = M5-R1/8 with manual override A = O-Rings rotatable interface B = O-Rings fixed interface C = G1/8-fittings Ø4 mm F = Ø6 mm barb fittings
C	ORIFICE DIAMETER C = Ø 1.2 - 1.4 - 1.5 mm D = Ø 2.0 mm E = Ø 2.5 mm
2	BODY MATERIAL 2 = nickel-plated brass - burnished brass - aluminium 3 = PA6 - PBT technopolimers
U7	SOLENOIDS - OVERMOLDING MATERIAL / SIZE U7 = PET / 22 mm - solenoids available in standard version and in ATEX version for Zones 2-22 G7 = PA66 / 22 mm G9 = PA66 / 22 mm - solenoid for bistable function (not available for 2/2 NO function) A8 = PPS / 30 mm H8 = PA6 V0 / 30 mm - solenoids ATEX version for Zones 1-21
7	VOLTAGE - POWER CONSUMPTION See the U7 / G7 solenoids section

* 3/2 NO IN-LINE version: port position 1 - 2 - 3 are identical to port positions of 3/2 NC versions

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series A, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

PRESSURE RANGES AND SOLENOIDS - VALVES BODY MATCHING TABLE

For vacuum applications:

2/2-way function connect the suction source to port 2

3/2-way function connect the suction source to port 1

Mod.	Min ÷ max working pressure (bar) allowed with solenoids DC >3 W	Min ÷ max working pressure (bar) allowed with solenoids DC >4 W	Min ÷ max working pressure (bar) allowed with solenoids AC >3.5 VA
Function 2/2 NC			
A321-0C2- ^{ss}	-0.9 ÷ 8	-0.9 ÷ 15	-0.9 ÷ 15
A321-1C2- ^{ss}	-0.9 ÷ 8	-0.9 ÷ 15	-0.9 ÷ 15
A321-1D2- ^{ss}	-0.9 ÷ 4	-0.9 ÷ 9	-0.9 ÷ 9
A321-1E2- ^{ss}	-0.9 ÷ 1	-0.9 ÷ 6	-0.9 ÷ 6
AB21-FE3- ^{ss}	-0.9 ÷ 1	-0.9 ÷ 6	-0.9 ÷ 6
-	-	-	-
Function 2/2 NO			
A322-0C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A322-1C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
-	-	-	-
Function 3/2 NC			
A131-AC2- ^{ss}	-	-	-
A231-BC2- ^{ss}	-	-	-
A331-0C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-1C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-1D2- ^{ss}	-	-0.9 ÷ 6	-0.9 ÷ 6
A331-1E2- ^{ss}	-	-0.9 ÷ 4	-0.9 ÷ 4
A331-3C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-4C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A431-1C2- ^{ss}	2 ÷ 10	2 ÷ 10	2 ÷ 10
A531-BC2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A631-AC2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A731-AC2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
AB31-FE3- ^{ss}	-	-0.9 ÷ 4	-0.9 ÷ 4
AA31-0C2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
AA31-0C3- ^{ss}	2 ÷ 8	-0.9 ÷ 8	-0.9 ÷ 8
AA31-CC2- ^{ss}	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
AA31-CC3- ^{ss}	2 ÷ 8	-0.9 ÷ 8	-0.9 ÷ 8
-	-	-	-
Function 3/2 NO			
A332-0C2- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
A332-1C2- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-0C2- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-0C3- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-CC2- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-CC3- ^{ss}	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
-	-	-	-
Function 3/2 NO IN-LINE			
A333-0C2- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 9
A333-1C2- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-0C2- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-0C3- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 8
AA33-CC2- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-CC3- ^{ss}	-0.9 ÷ 6	-	-0.9 ÷ 8
-	-	-	-
Solenoids for functions 2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO			
12 V DC - 3.1 W	G7H - U7H - U7HEX	-	-
24 V DC - 3.1 W	G77 - U77 - U77EX	-	-
48 V DC - 3.1 W	G79 - U79 - U79EX	-	-
110 V DC - 3.2 W	G710 - U710 - U710EX	-	-
6 V DC - 5.1 W	-	U71 - U71EX	-
12 V DC - 5 W	-	G72 - U72 - U72EX	-
24 V DC - 5 W	-	G73 - U73 - U73EX	-
48 V DC - 5.3 W	-	U74 - U74EX	-
72 V DC - 4.8 W	-	G7K - U7K - U7KEX	-
110 V DC - 4.2 W	-	G76 - U76 - U76EX	-
48 V 50/60 Hz - 3.8 VA	-	-	G77 - U77 - U77EX
110 V 50/60 Hz - 3.8 VA	-	-	G7K - U7K - U7KEX
125 V 50/60 Hz - 5.5 VA	-	-	G7K - U7K - U7KEX
230 V 50/60 Hz - 3.5 VA	-	-	G7J - U7J - U7JEX
240 V 50/60 Hz - 4 VA	-	-	G7J - U7J - U7JEX
-	-	-	-
Solenoids for 3/2 NO IN-LINE functions			
12 VDC - 3.1 W	G7H1 - U7H1	-	-
24 V DC - 3.1 W	U771 - U771EX	-	-
72 V DC - 5.6 W	-	G7K1 - U7K1 - U7K1EX	-
48 V 50/60 Hz - 3.8 VA	-	-	G771 - U771 - U771EX
110 V 50/60 Hz - 5.8 VA	-	-	G7K1 - U7K1 - U7K1EX
125 V 50/60 Hz - 8.3 VA	-	-	G7K1 - U7K1 - U7K1EX

Note: for AC voltages, the indicated pressure ranges refer to 50 Hz frequency.
Please contact our technical dept. for use with 60Hz frequency.

Direct acting solenoid valves

Series 6

2/2-way - Normally Closed (NC)

3/2-way - Normally Closed (NC), Normally Open (NO)



Series 6 solenoid valves are available as 2/2 and 3/2-way, either NC or NO. These direct acting solenoid valves can be used either with or without lubrication.

The bodies of these valves can be used either individually or in manifolds. The latter are provided with G1/8 threaded ports or an inbuilt diameter 4 cartridge (G3/8 for 2-way only).

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	G1/8, G3/8 threads - Ø4 fitting - CNOMO interface
Orifice diameter	2 ... 4 mm
Flow coefficient kv (l/min)	1.2 ... 5.4
Operating pressure	0 ÷ 4 ... 15 bar
Operating temperature	0 ÷ 60 °C (FKM seals) / -50 ÷ 50 °C (NBR seals)
Media	filtered air, class [5:4:4] (5.1.4 for versions -50°C) according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas ON <15 ms - OFF <15 ms
Response time	
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	nickel-plated brass - anodized aluminium
Seals	FKM (NBR for versions -50 °C)
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 230 V AC 50/60 Hz
Voltage tolerance	±10% (DC) - +10% ÷ -15% (AC)
Power consumption	10 W (DC) - 19 VA (inrush AC), 12 VA (holding AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	connector DIN EN 175 301-803-A
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

6	3	8	M	-	105	-	A	6	B
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6	SERIES
3	NUMBER OF PORTS AND FUNCTIONS 0 = interface 2 = 2/2-way - NC 3 = 3/2-way - NC 4 = 3/2-way - NO
8	CONNECTION 0 = interface 3 = G3/8 8 = G1/8 C = cartridge Ø 4
M	M = manifold
105	TYPE OF BODY 150 = threaded body G1/8 - orifice Ø 2 mm 15E = threaded body G3/8 - orifice Ø 2.5 mm 15F = threaded body G3/8 - orifice Ø 3 mm 15G = threaded body G3/8 - orifice Ø 4 mm 450 = rotatable interface body - Ø 2 mm orifice 45E = rotatable interface body - Ø 2.5 mm orifice 457 = fixed interface body - Ø 2 mm orifice 101 = single manifold 102 = manifold - 2 pieces 103 = manifold - 3 pieces 104 = manifold - 4 pieces 105 = manifold - 5 pieces 106 = manifold - 6 pieces 107 = manifold - 7 pieces 108 = manifold - 8 pieces 109 = manifold - 9 pieces 110 = manifold - 10 pieces 111 = manifold - 11 pieces 112 = manifold - 12 pieces 113 = manifold - 13 pieces 114 = manifold - 14 pieces 115 = manifold - 15 pieces
A	COIL MATERIAL A = PPS
6	SOLENOID DIMENSIONS 6 = 32x32
B	VOLTAGE - POWER CONSUMPTION B = 24 V 50/60 Hz - 12 VA C = 48 V 50/60 Hz - 12 VA D = 110 V 50/60 Hz - 12 VA E = 230 V 50/60 Hz - 12 VA 2 = 12 V DC - 10 W 3 = 24 V DC - 10 W 4 = 48 V DC - 10 W 5 = 72 V DC - 10 W 6 = 110 V DC - 10 W 8 = 160 V DC - 10 W
	VERSIONS = standard LT = for low temperatures

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 6, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

Solenoid valves

Series CFB

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC)



For general applications, solenoid valves Series CFB are available in 2/2-way NC and NO version, while 3/2-way is only available in NC version. Special versions are available on demand for the protection against the water hammer or with specific treatments for the interception of aggressive fluids.

The valve function is determined by a poppet or by a diaphragm with operation direct or indirect. Different versions are available according to the nominal diameter and to the threaded ports, as shown in the following tables. They can thus satisfy various requirements in terms of flow rates and working pressures.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC
Operation	direct acting poppet type - servo-assisted with diaphragm
Pneumatic connections	G1/8 ... G2 threads
Orifice diameter	1.4 ... 50 mm
Flow coefficient Kv (m ³ /h)	0.14 ... 45
Operating pressure	0 ÷ 0.8 ... 22 bar
Operating temperature	-10 ÷ 90 ... 140 °C
Media	air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E)
Response time	ON <15 ms - OFF <25 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass (alimentary or anti-limestone nickel-platings on demand)
Seals	NBR (CFB-A, CFB-E) - FKM (CFB-B, CFB-D) - EPDM (on demand)
Internal parts	stainless steel - stainless steel and brass (CFB-D1)
ELECTRICAL FEATURES	
Voltage	12 V DC, 24 V DC - 24 V 50 Hz, 110 V 50/60 Hz, 220/230 V 50/60 Hz
Voltage tolerance	±5% (DC) - ±10% (AC)
Power consumption	10 ... 30 W (DC) - 9 ... 29 VA (AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	industry standard form B - DIN EN 175 301-803-A
Protection class	IP65 with connector
Special versions available on demand	

It is recommended to use connections with internal diameters bigger than valve orifices, otherwise there may be a performance change.

CODING EXAMPLE

CFB	-	A	1	3	L	-	R	1	-	B7	E
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CFB	SERIES
A	OPERATION A = indirect B = direct with linked diaphragm D = direct E = indirect with coil for heavy-duty applications
1	NUMBER OF WAYS - POSITIONS 1 = 2/2-way - NO 2 = 2/2-way - NC 3 = 3/2-way - NC
3	CONNECTIONS 1 = G1/8 2 = G1/4 3 = G3/8 4 = G1/2 5 = G3/4 6 = G1 7 = G1 1/4 8 = G1 1/2 9 = G2
L	ORIFICE DIAMETER A = 1.4 mm B = 2 mm C = 2.5 mm D = 2.8 mm F = 4 mm G = 6 mm J = 8 mm L = 11.5 mm M = 13 mm N = 13.5 mm P = 18 mm R = 26 mm T = 32 mm X = 45 mm Z = 50 mm
R	SEALS MATERIAL R = NBR W = FKM E = EPDM (on demand)
1	BODY MATERIAL 1 = brass 2 = alimentary anti-limestone nickel-plated brass for high temperatures (on demand) 3 = alimentary nickel-plated brass (on demand)
B7	SOLENOID DIMENSION B7 = 22 mm B8 = 30 mm B9 = 36 mm
E	SOLENOID VOLTAGE B = 24 V AC 50 Hz D = 110 V AC 50/60 Hz E = 230 V AC 50/60 Hz 2 = 12 V DC 3 = 24 V DC

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series CFB, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

For solenoids and their connectors see the dedicated section.

Coil mod. B8... / B9... - DIN EN 175 301-803-A = connector mod. 124-...

Coil mod. B7... - DIN EN 175 301-803-B = connector mod. 122-...

Mod.	24V AC 50 Hz	110V AC 50/60 Hz	220/230V AC 50/60 Hz	12V DC	24V DC
Direct acting solenoid valve, 2/2 NC - 2/2 NO - 3/2 NC					
CFB-D21C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22G-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23I-*	B9B (29VA)	B9D (29VA)	B9E (29VA)**	not available	B93 (30W)
CFB-D24I-*	B9B (29VA)	B9D (29VA)	B9E (29VA)**	not available	B93 (30W)
CFB-D24M-*	B9B (29VA)	B9D (29VA)	B9E (29VA)**	not available	not available
CFB-D11A-*					
CFB-D11A-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	B82K (19W)	B83K (19W)
CFB-D12D-*					
CFB-D12D-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	B82K (19W)	B83K (19W)
CFB-D13I-*					
CFB-D13I-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	non disponibile	non disponibile
CFB-D31A-*					
CFB-D31A-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D31D-*					
CFB-D31D-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D32A-*					
CFB-D32A-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D32D-*					
CFB-D32D-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
Direct acting solenoid valve with constrained diaphragm, 2/2 NC					
CFB-B23L-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B24N-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B25P-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B26R-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
Indirect acting solenoid valve, 2/2 NC					
CFB-A23L-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A24N-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A25P-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A26R-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A27I-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-A28X-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-A29Z-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
Indirect acting solenoid valve, for heavy-duty applications, 2/2 NC					
CFB-E23L-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E24N-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E25P-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E26R-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E27I-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E28X-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E29Z-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
Indirect acting solenoid valve, 2/2 NO					
CFB-E13L-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E14N-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E15P-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E17I-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E16R-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E18X-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-E19Z-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
	* B7B solenoid with nominal bifrequency of 50/60 Hz		** only to be used with nominal frequency of 50 Hz		

Stainless steel solenoid valves

Series CFB

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)



Series CFB Stainless Steel direct acting solenoid valves for general purpose, 2/2-way and 3/2-way NC, are the ideal solution for a wide range of applications whereby the environment and fluids used can be particularly aggressive and contaminating. Special versions are available on demand.

The valve function is determined by a poppet and the operation is direct. Different versions are available according to the nominal diameter and to the threaded ports, as shown in the following tables. They can thus satisfy various requirements in terms of flow rates and working pressures.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC
Operation	direct acting poppet type
Pneumatic connections	G1/8 ... G1/2 threads
Orifice diameter	1.5 ... 4 mm
Flow coefficient Kv (m ³ /h)	0.08 ... 0.28
Operating pressure	0 ÷ 4 ... 25 bar
Operating temperature	-10 ÷ 140 °C
Media	air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E)
Response time	ON <15 ms - OFF <25 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	stainless steel 316L
Seals	FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 V DC, 24 V DC - 24V AC 50 Hz, 110 V AC 50/60 Hz, 220/230 V AC 50/60 Hz
Voltage tolerance	±5% (DC) - ±10% (AC)
Power consumption	19 W (DC) - 15 VA (AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	DIN EN 175-301-803-A connector
Protection class	IP65 with connector
Special versions available on demand	

It is recommended to use connections with internal diameters bigger than valve orifices, otherwise there may be a performance change.

CODING EXAMPLE

CFB	-	D	2	1	A	-	W	X	-	B8	E
CFB	SERIES										
D	OPERATION D = direct										
2	NUMBER OF WAYS - POSITIONS 2 = 2/2-way - NC 3 = 3/2-way - NC										
1	CONNECTIONS 1 = G1/8 2 = G1/4 3 = G3/8 4 = G1/2										
A	ORIFICE DIAMETER A = 1.5 mm B = 2 mm C = 2.5 mm E = 3 mm F = 4 mm										
W	SEALS MATERIAL W = FKM E = EPDM										
X	BODY MATERIAL X = 316L stainless steel										
B8	SOLENOID DIMENSION B8 = 30 mm										
E	VOLTAGE - POWER CONSUMPTION B = 24 V 50/60 Hz - 15 VA D = 110 V 50/60 Hz - 15 VA E = 230 V 50/60 Hz - 15 VA 2 = 12 V DC - 19 W 3 = 24 V DC - 19 W										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series CFB , available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Direct and indirect acting 2/2 - 3/2-way solenoid valves, where you will find all compatible accessories as well.

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

For solenoids and their connectors see the dedicated section.
Coil mod. B8... - DIN EN 175 301-803-A = connector mod. 124-...

* = complete the code according to coding example

Mod.	24V AC 50 Hz	110V AC 50/60 Hz	220/230V AC 50/60 Hz	12V DC	24V DC
CFB-D21A -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21B -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21C -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22B -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22C -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22E -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23E -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23F -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D24E -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D24F -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32A -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32B -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32C -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32E -*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)

Pneumatic operated cartridge valves Series 8

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)



Series 8 pneumatic operated valves are particularly suitable for applications requiring high flow combined with compact design. The valve is pneumatic operated by electro-pilots which are dimensioned according to the size. The cartridge design, which is ideal for manifold assembly, allows to reduce both dimensions and the number of pneumatic connections.

The standard function of the valve is 2/2-way NC. It can however fulfill the 3/2-way NC function if inserted in a proper seat.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC - 3/2 NC
Operation	pneumatic operated poppet type
Pneumatic connections	cartridge seat in manifold
Orifice diameter	5 ... 9 mm
Nominal flow	420 ... 1480 Nl/min (air at 6 bar ΔP 1 bar)
Flow coefficient kv (l/min)	6.5 ... 23
Operating pressure	3 ÷ 6 bar (0 ÷ 6 bar with external pilot supply)
Piloting pressure	3 ÷ 6 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air, class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cst), inert gas, oxygen
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	PPS - brass
Internal parts	aluminium
Seals	FKM

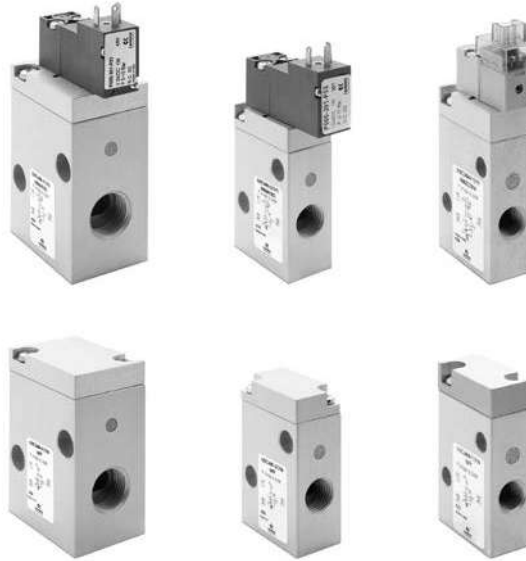
CODING EXAMPLE

8	10	C5	1	00	-	F1	3	2	-	OX2
8	SERIES									
10	SIZE 10 = size 1 - Ø 10.0 mm 20 = size 2 - Ø 14.5 mm 30 = size 3 - Ø 22.0 mm									
C5	BODY DESIGN C5 = cartridge									
1	NUMBER OF WAYS - FUNCTIONS 1 = 2/2 or 3/2-way - NC NOTE: the function 2/2 or 3/2-way depends on the seat used									
00	PNEUMATIC CONNECTIONS 00 = cartridge									
F1	ORIFICE DIAMETER F1 = Ø 5.0 mm - size 1 only G7 = Ø 6.6 mm - size 2 only K1 = Ø 9.0 mm - size 3 only									
3	SEAL MATERIAL 3 = FKM									
2	BODY MATERIAL 2 = brass B = PPS									
OX2	OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²) NOTE: the OX2 suffix must be added also in case of use with air/gas.									

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 8, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Pneumatically and electropneumatically operated valves Series 8

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)



The Series 8 enlarges the range of versions available with the cartridge valve directly integrated in an anodized aluminium body comprising also the pilot solenoid valve. The new bodies enable to have pneumatically operated versions with external piloting or electropneumatically operated versions with both external and internal piloting.

GENERAL DATA

TECHNICAL SPECIFICATIONS

Function	2/2 NC - 3/2 NC
Operation	pneumatic or electropneumatic
Pneumatic connections	G1/8 - G1/4 - G3/8
Nominal diameter	5 ... 9 mm
Flow coefficient kv (l/min)	6.5 ... 23
Nominal flow	420 ... 1480 Nl/min (air at 6 bar ΔP 1 bar)
Operating pressure	3 ÷ 6 bar (0 ÷ 6 bar with external pilot supply)
External pilot pressure	3 ÷ 6 bar
Operating temperature	0 ÷ 50 °C
Fluid	filtered air class [5:4:4] according to ISO 8573-1:2010 (oil viscosity max. 32 cSt), inert gases
Response times	ON <10 ms - OFF <10 ms
Installation	any position

MATERIALS IN CONTACT WITH FLUID

Body	aluminium
Seals	FKM
Internal parts	aluminium - brass

ELECTRICAL SPECIFICATIONS

Voltage	24 V DC - other voltages on demand
Voltage tolerance	Size 1 = ±10% - Size 2 and 3 = -10% +15%
Power consumption	Size 1 = 1.3 W (inrush) 0.25 W (holding) - Size 2 and 3 = 2 W
Duty cycle	ED 100%
Electrical connection	connectors - 300 mm flying leads
Protection class	Size 1 = IP50 - Size 2 and 3 = IP65 (with connector)

CODING EXAMPLE

8	10	C3	4	04	-	F1	3	1	Y	-	N	00	2C	C014
----------	-----------	-----------	----------	-----------	----------	-----------	----------	----------	----------	----------	----------	-----------	-----------	-------------

8	SERIES
10	SIZE 10 = size 1 20 = size 2 30 = size 3
C3	TYPE OF BODY C3 = valve with aluminium body threaded connections
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC 4 = 3/2-way - NC
04	PNEUMATIC CONNECTIONS 04 = G1/8 (size 1) 05 = G1/4 (size 2) 06 = G3/8 (size 3)
F1	ORIFICE DIAMETER F1 = 5.0 mm (size 1) G7 = 6.6 mm (size 2) K1 = 9.0 mm (size 3)
3	SEAL MATERIAL 3 = FKM
1	BODY MATERIAL 1 = aluminium
Y	MANUAL OVERRIDE N = not provided Y = provided monostable
N	MOUNTING ACCESSORIES N = not provided
00	OPTIONS 00 = no option PP = pneumatic piloting PE = electropilot with external piloting
2C	ELECTRICAL CONNECTION 2C = KN 90° type + protection + led - only for size 1 2F = KN in line type + protection + led - only for size 1 3A = DIN EN 175 301-803-C (8 mm) - only for size 2 and 3 4A = industrial standard (9.4 mm) - only for size 2 and 3 7A = 300 mm flying leads - only for size 2 and 3
C014	VOLTAGE - POWER CONSUMPTION C012 = 12V DC - 1.3/0.25W (size 1) C014 = 24V DC - 1.3/0.25W (size 1) C020 = 12V DC - 2W (size 2 - 3) C023 = 24V DC - 2W (size 2 - 3) C025 = 48V DC - 2W (size 2 - 3)
	VERSION = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ³) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ³)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 8, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Shut-off micro-valves Series TC

2/2-way - Normally Closed (NC)



The principle of the Series TC1-V shut-off micro-valves is based on the actuation of a poppet by means of an operating pressure applied above it.

The poppet, once actuated, moves away from the tightening seal, permitting the flow of the intercepted fluid.

By removing the actuation pressure, the poppet repositions itself on the tightening seal by means of a spring positioned below that closes the flow of the fluid.

For its realization the most suitable materials for contact with fluids were selected. The body in PPS and the FKM tightening seals guarantee full compatibility with a wide range of gaseous fluids.

GENERAL DATA

Construction	compact with pre-formed diaphragm
Ports	cartridge construction in manifold - G1/8 or 1/8NPTF (only for aluminium body version)
Mounting	in-line or cartridge (any position)
Operating temperature	-5°C ÷ 50°C
Inlet pressure	0 ÷ 10 bar
Pilot pressure	0.6 ÷ 10 bar
Nominal flow	240 NL/min (6 bar ΔP 1 bar)
Medium	air, inert/medical gases and oxygen

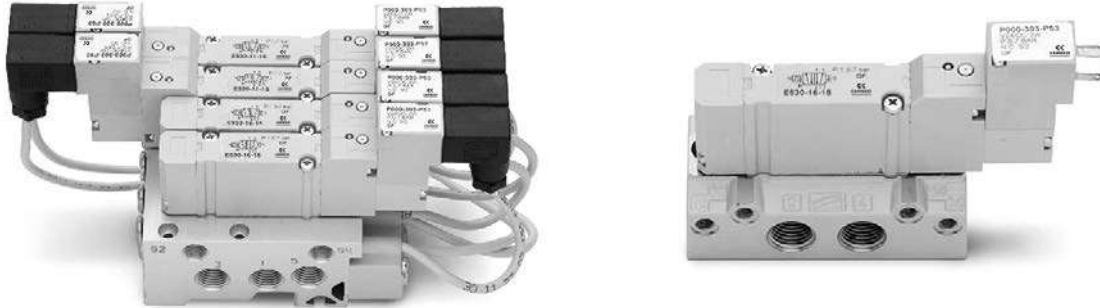
CODING EXAMPLE

TC	1	-	V	36	-	C	-	V	-	OX2
TC	SERIES									
1	SIZE									
V	VALVE									
36	CONSTRUCTION 36 = pneumatic command									
C	PORTS C = Cartridge 1/8 = G1/8 1/8TF = 1/8NPTF									
V	SEALS MATERIAL V = FKM									
OX2	VERSIONS OX1 = for oxygen (non-volatile residue lower than 550 mg/m ²) OX2 = for oxygen (non-volatile residue lower than 33 mg/m ²)									

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series TC, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series E

5/2-way monostable/bistable - 5/3 CC, CO, CP
With outlets on the body - For individual or manifold assembly
Size 10,5 mm



CODING EXAMPLE - THREADED BODY

E	5	2	1	-	11	-	10	-	K	1	3
----------	----------	----------	----------	----------	-----------	----------	-----------	----------	----------	----------	----------

E	SERIES
5	FUNCTION 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure
2	SIZE 2 = 10,5 mm
1	BODY TYPE 1 = threaded
11	ACTUATION 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable - tube 3 36 = pneumatic monostable - tube 4 C33 = pneumatic bistable - tube 4 C36 = pneumatic monostable - tube 4
10	INTERFACE 10
K	TYPE OF SOLENOID K
1	SOLENOID DIMENSION 1 = 10x10
3	SOLENOID VOLTAGE 1 = 6V DC 2 = 12V DC 3 = 24V DC

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series E, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.



CODING EXAMPLE - BODY FOR SUB-BASE

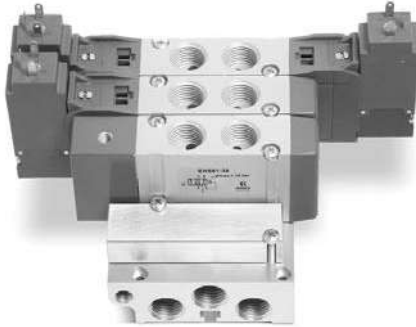
E	5	2	0	-	11	-	10	-	K	1	3
----------	----------	----------	----------	----------	-----------	----------	-----------	----------	----------	----------	----------

E	SERIES
5	FUNCTION 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure
2	SIZE 2 = 10,5 mm
0	BODY TYPE 0 = body for sub-base
11	ACTUATION 11 = electropneumatic bistable 16 = electropneumatic monostable 33 = pneumatic bistable - tube Ø 3 36 = pneumatic monostable - tube Ø 3 C33 = pneumatic bistable - tube Ø 4 C36 = pneumatic monostable - tube Ø 4
10	INTERFACE 10
K	TYPE OF SOLENOID K
1	SOLENOID DIMENSIONS 1 = 10x10
3	SOLENOID VOLTAGE 1 = 6V DC 2 = 12V DC 3 = 24V DC

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series E, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series EN

5/2-way - 5/3-way CC, CO, CP
With outlets on the body - For individual or manifold assembly
Size 16 - 19 mm



Camozzi has developed a new series of valves to be used in applications requiring a reduced space of installation and in situations where the valves need to be located as near as possible to the operating elements.

The single valves can be mounted on any flat surface, allowing compact machine design, which is also enhanced by the reduced dimensions of the valve itself. Thanks to their robust aluminium bodies, the valves Series EN offer the highest reliability.

This new generation of solenoid valves is the evolution of the previous Series E, size 16 - 19 mm valve with ports threaded into the body. As this valve is completely interchangeable with Series E, part of the code is maintained though the valve has a completely new shape and new components.

CODING EXAMPLE - THREADED BODY

EN	5	3	1	-	11	-	PN3
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EN	SERIES
5	<p>FUNCTION</p> <p>5 = 5/2 6 = 5/3 Centre Closed 7 = 5/3 Centre Open 8 = 5/3 Pressure Centre</p>
3	<p>SIZE</p> <p>3 = size 16 5 = size 19</p>
1	<p>BODY TYPE</p> <p>1 = threaded</p>
11	<p>ACTUATION</p> <p>11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable 36 = pneumatic monostable E11 = electro-pneumatic, bistable with external servo-pilot supply E16 = electro-pneumatic, monostable with external servo-pilot supply</p>
PN3	<p>TYPE OF SOLENOID</p> <p>PN3 = 24V DC - 1W P13 = 24V DC - 1W PN4 = 48V DC - 2W PN6 = 110V DC - 2W PN7 = 230V - 2W P53 = 24V DC - 2W P54 = 48V DC - 2W P56 = 110V DC - 2W W53 = 24V DC - 2W W54 = 48V DC - 2W</p> <p>In case of applications with alternate current, use a bridge rectifier connector</p>

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series EN, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.



CODING EXAMPLE - BODY FOR SUB-BASE

EN	5	3	0	-	11	-	PN3
EN	SERIES						
5	FUNCTION 5 = 5/2 6 = 5/3 Centre Closed 7 = 5/3 Centre Open 8 = 5/3 Pressure Centre						
3	SIZE 3 = size 16 5 = size 19						
0	BODY TYPE 0 = body for sub-base						
11	ACTUATION 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable 36 = pneumatic monostable E11 = electro-pneumatic, bistable with external servo-pilot supply E16 = electro-pneumatic, monostable with external servo-pilot supply						
PN3	TYPE OF SOLENOID PN3 = 24V DC - 1W PN4 = 48V DC - 2W PN6 = 110V DC - 2W PN7 = 230V - 2W P13 = 24V DC - 1W P54 = 48V DC - 2W P56 = 110V DC - 2W W53 = 24V DC - 2W W54 = 48V DC - 2W In case of applications with alternate current, use a bridge rectifier connector						

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series EN, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

GENERAL DATA

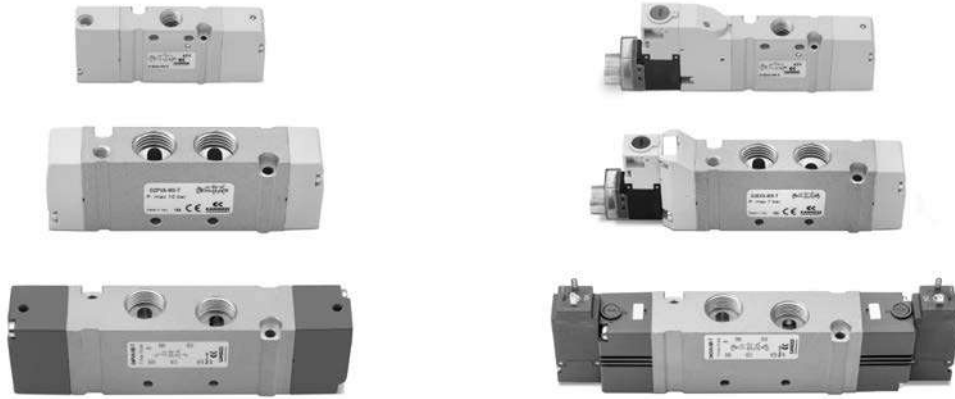
Construction	spool-type
Valve functions	5/2 - 5/3 CC - 5/3 CO - 5/3 CP
Materials	body, spool, bases = AL end-covers = tecnopolymer joints = NBR PU
Ports	G1/8 - G1/4
Temperature	0°C min. + 50° C max
Fluid	filtered air without lubricant. If lubricated air is used, it is recommended to use ISOVG32 oil and to never interrupt lubrication.
Voltage tolerance	± 10%
Power consumption	2W, 1W
Class of insulation	class F
Protection class	IP65 with connector DIN 40050

Valves and solenoid valves VA version Series D

3/2; 2x3/2; 5/2; 5/3-way

With outlets on the body - For individual or manifold assembly

Size 10,5 - 16 - 25 mm



Camozzi has developed a new series of valves for applications with limited installation space where it is necessary to have the control elements as close to the actuator as possible. Valves with threads on the body can be used individually or assembled on manifold.

The sub-base version allows a better cleaning of the application. Thanks to the extreme robust aluminium body, the Series D valves guarantee maximum reliability even under difficult operating conditions.

GENERAL DATA

Valve construction	spool- type
Valve functions	3/2 NC/NO; 2x3/2 NC/NO/NC+NO; 5/2; 5/3 CC/CO/CP
Materials	body, spool, bases = AL; end caps = technopolymer; seals = HNBR
Ports	M7 - G1/4 - G3/8
Ambient temperature	0°C min. + 50° C max
Medium	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo pilot. The air quality for the servo pilot should be of class [7:4:4] according to ISO 8573-1:2010
Voltage	24V DC
Voltage tolerance	± 10%
Power consumption	1W
Class of insulation	class F
Protection class	IP65 with EN 175301 C connector ("3" actuation. Ex DIN 43650)* IP65 with M8 connector ("C" actuation)* IP40 with micro connector ("E" actuation)* *See coding example

CODING EXAMPLE

D	1	E	VA	-	B	P	-	BS																														
D	SERIES																																					
1	SIZE 1 = 10.5 mm 2 = 16 mm 4 = 25 mm																																					
E	ACTUATION E = electric (D1 and D2) 3 = electric 15 mm (D2 and D4) C = electric with M8 connections (D1 and D2) P = pneumatic																																					
VA	COMPONENT VA = Valve with threaded body																																					
B	<table border="0"> <tr> <td>TYPE OF SOLENOID VALVE</td> <td>SOLENOID VALVE WITH EXTERNAL SERVO-PILOT SUPPLY</td> </tr> <tr> <td>M = 5/2 Monostabile</td> <td>MZ = 5/2 Monostabile</td> </tr> <tr> <td>B = 5/2 Bistabile</td> <td>BZ = 5/2 Bistabile</td> </tr> <tr> <td>P = 3/2 NC</td> <td>PZ = 3/2 NC</td> </tr> <tr> <td>Q = 3/2 NO</td> <td>QZ = 3/2 NO</td> </tr> <tr> <td>C = 2 x 3/2 NC</td> <td>CZ = 2 x 3/2 NC</td> </tr> <tr> <td>A = 2 x 3/2 NO</td> <td>AZ = 2 x 3/2 NO</td> </tr> <tr> <td>G = 2 x 3/2 (NC+NO)</td> <td>GZ = 2 x 3/2 (NC+NO)</td> </tr> <tr> <td>N = 5/3 CP</td> <td>NZ = 5/3 CP</td> </tr> <tr> <td>V = 5/3 CC</td> <td>VZ = 5/3 CC</td> </tr> <tr> <td>K = 5/3 CO</td> <td>KZ = 5/3 CO</td> </tr> </table>								TYPE OF SOLENOID VALVE	SOLENOID VALVE WITH EXTERNAL SERVO-PILOT SUPPLY	M = 5/2 Monostabile	MZ = 5/2 Monostabile	B = 5/2 Bistabile	BZ = 5/2 Bistabile	P = 3/2 NC	PZ = 3/2 NC	Q = 3/2 NO	QZ = 3/2 NO	C = 2 x 3/2 NC	CZ = 2 x 3/2 NC	A = 2 x 3/2 NO	AZ = 2 x 3/2 NO	G = 2 x 3/2 (NC+NO)	GZ = 2 x 3/2 (NC+NO)	N = 5/3 CP	NZ = 5/3 CP	V = 5/3 CC	VZ = 5/3 CC	K = 5/3 CO	KZ = 5/3 CO								
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VERSION 3, through the connector with rectifier bridge 125-571-3, can be used for AC applications. (see the connectors at the end of the section)																																						

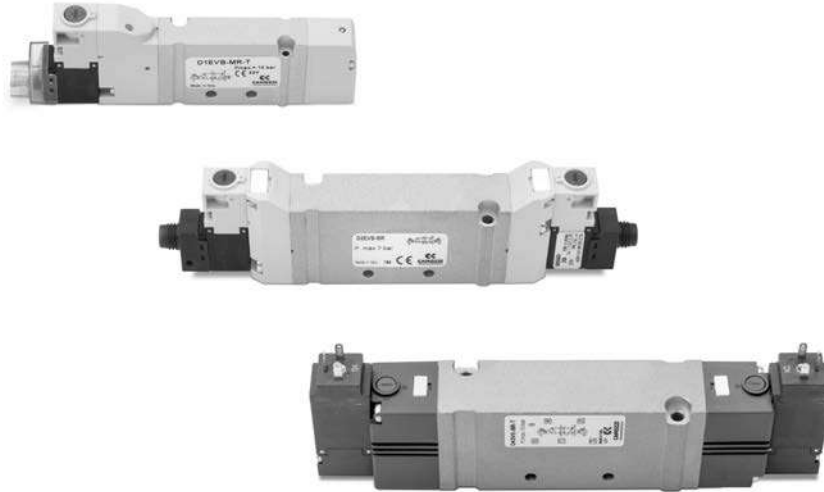
NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series D, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Solenoid valves VB version Series D

2x3/2; 5/2; 5/3-way

Valve with body for subbase

Size 10,5 - 16 - 25 mm



Camozzi has developed a new series of valves for applications with limited installation space where it is necessary to have the control elements as close to the actuator as possible.

Thanks to the extreme robust aluminium body, the Series D valves guarantee maximum reliability even under difficult operating conditions.

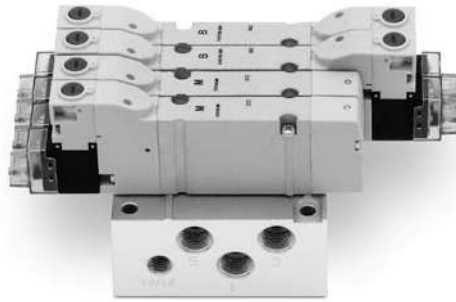
GENERAL DATA

Valve construction	spool- type
Valve functions	2x3/2 NC/NO/NC+NO; 5/2; 5/3 CC/CO/CP
Materials	body, spool, bases = AL; end caps = technopolymer; seals = HNBR
Ambient temperature	0°C ÷ 50° C
Medium	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo pilot. The air quality for the servo pilot should be of class [7:4:4] according to ISO 8573-1:2010
Voltage	24V DC
Voltage tolerance	± 10%
Power consumption	1W
Class of insulation	class F
Protection class	IP65 with EN 175301 C connector ("3" actuation. Ex DIN 43650)* IP65 with M8 connector ("C" actuation)* IP40 with micro connector ("E" actuation)* *See coding example

CODING EXAMPLE

D	1	E	VB	-	B	P
D	SERIES					
1	SIZE 1 = 10,5 mm 2 = 16 mm 4 = 25 mm					
E	ACTUATION E = electric (D1 and D2) 3 = electric 15 mm (D2 and D4) C = electric with M8 connections (D1 and D2)					
VB	COMPONENT VB = Valve with body for sub-base					
B	TYPE OF SOLENOID VALVE M = 5/2 Monostable B = 5/2 Bistable C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC+NO) N = 5/3 CP V = 5/3 CC K = 5/3 CO					
P	TYPE OF MANUAL OVERRIDE P = push button (not for "3" actuation) R = with push and turn device					
VERSION 3, through the connector with rectifier bridge 125-571-3, can be used for AC applications. (see the connectors at the end of the section)						

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series D, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.



CODING EXAMPLE MANIFOLD WITH VALVES AND FITTINGS

DC	B	1	E	R	A	-	MBMXCVB	-	3BX2AB	-	CSL	-	R
DC	SERIES												
B	MANIFOLD WITH VALVES B = For type VB valve												
1	SIZE 1 = 10.5 mm - 2 = 16 mm - 4 = 25 mm												
E	ACTUATION E = Electric (D1 and D2) - 3 = Electric 15 mm (D2 and D4) - C = Electric with M8 connector (D1 and D2)												
R	TYPE OF MANUAL OVERRIDE P = push button (not for "3" actuation) - R = with push and turn device												
A	SERVO-PILOT SUPPLY A = internal - B = external												
MBMXCVB	TYPE OF VALVE / SOLENOID VALVE M = 5/2 Monostable B = 5/2 Bistable C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC + NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L = Free position X = Additional supply and exhaust Y = Additional supply and exhaust with silencer												
3BX2AB	CONNECTIONS ON VALVE POSITIONS (OUTLETS 2 AND 4 ON MANIFOLD) T = Thread A = Ø4 (D1) Fittings 6512 4-M7-M B = Ø6 (D1) Fittings 6512 6-M7-M; (D2) S6510 6-1/4 C = Ø8 (D2) Fittings S6510 8-1/4 D = Ø10 (D2) Fittings S6510 10-1/4; (D4) S6510 10-3/8 E = Ø12 (D4) Fittings S6510 12-3/8 F = Ø14 (D4) Fittings S6510 14-3/8 L = Free position X = Threaded plate Y = See codes D1AVB-Y / D2AVB-Y / D4AVB-Y												
CSL	MANIFOLD CONNECTIONS (supply and exhausts) T = Thread (on both sides) C = Fittings Ø8 on connections 1;3;5 (D1) 6512 8-1/8-M (D2) S6510 8-3/8 CS = Fittings Ø8 on supply + silencers on exhausts (D1) 6512 8-1/8-M + 2921 1/8 (D2) S6510 8-3/8 + 2921 3/8 D = Fittings Ø10 on connections 1;3;5 (D2) S6510 10-3/8 (D4) S6510 10-1/2 DS = Fittings Ø10 on supply + silencers on exhausts (D2) S6510 10-3/8 + 2921 3/8 (D4) S6510 10-1/2 + 2921 1/2 E = Fittings Ø12 on connections 1;3;5 (D4) S6510 12-1/2 ES = Fittings Ø12 on supply + silencers on exhausts (D4) S6510 12-1/2 + 2921 1/2 F = Fittings Ø14 on connections 1;3;5 (D4) S6510 14-1/2 FS = Fittings Ø14 on supply + silencers on exhausts (D4) S6510 14-1/2 + 2921 1/2 G = Fittings Ø16 on connections 1;3;5 (D4) S6510 16-1/2 GS = Fittings Ø16 on supply + silencers on exhausts (D4) S6510 16-1/2 + 2921 1/2 CONNECTION SIDE = Both (The servo-pilot fitting will be mounted on the right side) L = Fittings on the Left (right side covered) R = Fittings on the Right (left side covered) Servo-pilot fittings: Ø6 (D1) 6512 6-M7-M; (D2) S6510 6-1/8; Ø8 (D4) S6510 8-1/8												
R	FIXING = Direct R = Port for DIN rail (only for D1)												
VERSION 3, through the connector with rectifier bridge, can be used for AC applications. (see the connectors at the end of the section)													

VALVES AND SOLENOID VALVES

6

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series D, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series 3

2x3/2, 3/2, 5/2 and 5/3-way CC CO CP
Ports: G1/8 and G1/4



Series 3 solenoid valves with G1/8 and G1/4 ports have been designed in the 3/2, 2 x 3/2, 5/2, 5/3 versions and with the following two devices of actuation:

- Electropneumatically actuated with mechanical spring return
- Electropneumatically actuated with external and internal air pressure supply

Series 3 valves are equipped with a manual override which allows a stable operation and they can use Series U or G solenoids (22x22).

Pneumatically actuated valves 3/2 NC become NO when the supply is on connection 3.

GENERAL DATA

Construction	spool - type
Valve group	2x3/2 - 3/2 - 5/2 - 5/3-way CC CO CP
Materials	AL body, stainless steel spool, NBR seals
Ports	G1/8 - G1/4
Installation	in any position
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Operating pressure	-0,9 - 10 bar
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

3	3	8	D	-	015	-	02	IL	-	U7	7
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3	SERIES
3	NUMBER OF WAYS - POSITIONS 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP 9 = 1x3/2 NC + 1x3/2 NO
8	PORTS 8 = G1/8 4 = G1/4
D	VERSION = standard D = double valve 2x3/2 L = for manifold assembly (only for solenoid valves 3/2 with G1/8 ports)
015	ACTUATION 011 = double solenoid 015 = single solenoid, spring return 016 = single solenoid, pneumatic spring return E11 = double solenoid external servo-command E15 = single solenoid, external servo-command 033 = pneumatic pneumatic 035 = pneumatic spring
02	SOLENOID INTERFACE 02 = mech. sol. 22 x 22
IL	TYPE OF MANUAL OVERRIDE = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)
U7	ENCAPSULATING MATERIAL / SOLENOID DIMENSIONS A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22
7	SOLENOID VOLTAGE (see the dedicated section)

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 3, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series 4

3/2, 5/2 and 5/3-way CC, CO
Ports: G1/8, G1/4, G3/8, G1/2



Series 4 solenoid valves have been designed in the 3/2, 5/2, 5/3 versions and with the following two devices of actuation:

- electropneumatically actuated with mechanical spring return
- electropneumatically actuated and return with external and internal air pressure supply

Series 4 valves are equipped with a manual override which allows a stable operation and they are particularly suitable for mounting in arduous conditions.

All these valves can be operated by solenoids Series U, G A8 and H8.

Pneumatically actuated valves 3/2 NC become NO when the supply is on connection 3.

GENERAL DATA

Construction	balanced spool type
Valve functions	3/2 - 5/2 - 5/3-way CC, CO
Materials	AL body and subbases stainless steel spool technopolymer end cover NBR PU seals
Ports	G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Operating pressure	-0,9 - 10 bar
Medium	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

4	5	4	-	015	-	22	IL	-	U7	7
4	SERIES									
5	NUMBER OF WAYS - POSITIONS 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO									
4	PORTS 2C = G1/2 2N = G1/2 (high flow) 3 = G3/8 4 = G1/4 8 = G1/8									
015	ACTUATION 011 = double solenoid (horizontal solenoids) V11 = double solenoid (vertical solenoids) for G1/4 port only E11 = double solenoid external servo-command E15 = single solenoid external servo-command 015 = single solenoid, spring return (horizontal solenoids) V15 = single solenoid, spring return (vertical solenoid) for G1/4 port only 016 = single solenoid, pneumatic spring return (horizontal solenoid) V16 = single solenoid, pneumatic spring return (vertical solenoid) for G1/4 port only 33 = pneumatic pneumatic 34 = pneumatic differential 35 = pneumatic spring									
22	SOLENOID INTERFACE 22 = mech. sol. 22 x 22 50 = mech. sol. 32 x 32 (only for 452C version)									
IL	TYPE OF MANUAL OVERRIDE = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)									
U7	ENCAPSULATING MATERIAL / SOLENOID DIMENSIONS A6 = PPS / 32 x 32 (only for 452C version) A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22									
7	SOLENOID VOLTAGE (see the dedicated section)									

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 4, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series 9

5/2 and 5/3-way CC CO

Sizes 1 - 2 - 3

According to the standard ISO 5599/1



Series 9 electropneumatically or pneumatically operated valves have been designed with sizes 1, 2 and 3, as recommended by the ISO Standards. The ease of pneumatic and electrical wiring makes these valves extremely flexible.

GENERAL DATA

Operating pressure	0 - 10 bar
Nominal flow	ISO 1 = 900 NL/min ISO 2 = 1610 NL/min ISO 3 = 4350 NL/min
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil and to never interrupt the lubrication.
Electropneumatic interface	according CNOMO Standards

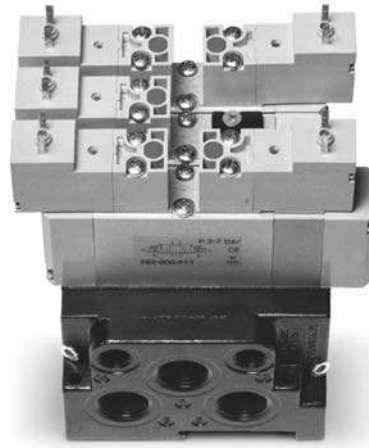
CODING EXAMPLE

9	5	1	-	000	-	P16	-	23	-	U7	7
9	SERIES										
5	NUMBER OF WAYS - POSITIONS 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO										
1	SIZE 1 = size 1 2 = size 2 3 = size 3										
000	BODY DESIGN 000 = valve body										
P16	ACTUATION 33 = pneumatic, pneumatic return 34 = pneumatic, differential pneumatic return 35 = pneumatic, mechanical spring return P11 = double solenoid (horizontal solenoids) P15 = single solenoid, spring return (horizontal solenoids) P16 = solenoid, pneumatic spring return (horizontal solenoids)										
23	SOLENOID INTERFACE AND MANUAL COMMAND 23 = A531-BC2 standard bistable manual override 23IL = A531-BC2 lever type bistable manual override 23IM = A531-BC2 monostable manual override										
U7	SOLENOID MATERIAL / SOLENOID DIMENSIONS A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22										
7	SOLENOID VOLTAGE (see the dedicated section)										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 9, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series 7

VDMA 24563 (ISO 15407-1)
5/2 - 5/3-way CC CO CP



Size 26 mm (VDMA 24563-01)
Size 18 mm (VDMA 24563-02)

GENERAL DATA

Construction	balanced spool type
Valve functions	5/2 - 5/3-way CC CO CP
Materials	AL body, spool base, polyamide endcovers, NBR seals
Mounting	by means of screws on the base
Ports	on sub-base
Operating temperature	0° C min. +50° C max
Fluid	filtered air (5 micron or less), without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.
Size	26 mm 18 mm
Installation	in any position
Operating pressure	P. max 7 bar
Nominal pressure	6 bar
Nominal flow	Qn Size 26 mm = 900 NI/min Qn Size 18 mm = 450 NI/min
Voltage tolerance	± 10%
Power consumption	2W
Class of insulation	class F
Protection	IP54 (IP65 with connector DIN 40050)

CODING EXAMPLE

7	5	1	-	N	1	A	-	P16	-	15	-	W	2	3
7	SERIES													
5	NUMBER OF WAYS - POSITIONS 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP													
1	SIZES 1 = size 26 mm 2 = size 18 mm													
N	SUBBASE N = sub-base with front outlets													
1	PORTS 1 = G1/4 (Size 26 mm) 2 = G1/8 (Size 18 mm)													
A	NUMBER OF SUBBASES A = 1 * B = 2 * C = 3 * D = 4 * E = 5 * F = 6 * G = 7 * H = 8 * K = 9 * L = 10 * M = 11 * N = 12 * P = 13 * R = 14 * S = 15 *													
P16	ACTUATION 33 = pneumatic, bistable 36 = pneumatic, monostable P11 = electro-pneumatic, bistable P16 = electro-pneumatic, monostable													
15	SOLENOID INTERFACE 15 = 15x15													
W	SOLENOID TYPES W = Series W (24V - 48V DC only) P = Series P **													
2	CONNECTION 1 = wire 300 mm (Series W, 24V DC only) ** 2 = 2 pins (Series W, 24V - 48V DC) 5 = 2 pins+earth (Series P) **													
3	SOLENOID VOLTAGE 3 = 24V DC 4 = 48V DC ** 6 = 110V DC (with Series P solenoids only) ** B = 24V 50/60 Hz (with Series P solenoids only) ** C = 48V 50/60 Hz (with Series P solenoids only) ** D = 110V 50/60 Hz (with Series P solenoids only) **													
	NOTES * complete with the two end blocks ** on request													

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 7, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Valves and solenoid valves Series NA

3/2 - 5/2 - 5/3-way CC CO CP
with holes configured according NAMUR standards



The pneumatic interface connection complies with NAMUR standards. These solenoid valves can be equipped with solenoids that are in compliance with UL or ATEX standards.

GENERAL DATA

Construction	spool type (servo-pilot operated)
Valve functions	3/2-way NC, NO - 5/2-way - 5/3-way CC, CO, CP
Materials	AL body - stainless steel spool - NBR seals
Mounting	through 2 Ø5 holes in the valve body
Ports	2 - 4 = NAMUR 1 - 3 - 5 = G1/4
Installation	directly on a Namur Interface
Operating temperature	0 ÷ 60°C (using dry air -20°C)
Operating pressure	1,5 - 10 bar double solenoid 2,5 - 10 bar single solenoid
Nominal pressure	6 bar
Nominal flow	Q _n = 1000 Nl/min
Nominal diameter	8 mm
Fluid	filtered air without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil, and to never interrupt the lubrication.

CODING EXAMPLE

NA	5	4N	-	15	-	02	IL	-	U7	7
NA	SERIES NAMUR									
5	NUMBER OF WAYS - POSITIONS 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP									
4N	PORTS 4N = G1/4 supply ports according NAMUR standards									
15	ACTUATION 11 = double solenoid 15 = single solenoid, spring return 33 = pneumatic pneumatic 35 = pneumatic, spring									
02	SOLENOID INTERFACE 02 = mech. sol. 22 x 22									
IL	TYPE OF MANUAL OVERRIDE = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)									
U7	SOLENOID MATERIAL / SOLENOID DIMENSIONS A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = Self-extinguishing PA, Explosion-proof / 30 x 30 U7 = PET / 22 x 22									
7	SOLENOID VOLTAGE (see the dedicated section)									

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue Series NA, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Angle seat valves Series ASX

2/2-way - Normally Closed (NC) and Normally Open (NO)
2/2-way - Double Acting (DA)



Angle seat valves are available in different versions with regard to nominal diameter, type of fluid and process connections. They are able to manage media that are corrosive or contain suspended solid particulate matter and can be used in applications with high operating temperatures.

The operation is determined by the pneumatic drive of a single acting, guided piston actuator with spring return. There are also models available with double acting actuators, without spring. For liquid media we recommend the models with flow direction under the seat. For gas or steam we recommend the models with flow direction above the seat.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 2/2 Double Acting
Operation	pneumatic, poppet type
Pneumatic connections	1/4 ... 4" with BSP/BSPT/NPT threads, flanged, welding ends, tri-clamp
Nominal diameter	DN8 ... DN100
Flow coefficient Kv (m ³ /h)	2.2 ... 132
Operating pressure	0 ÷ 2 ... 16 bar
Operating temperature	-10 ÷ 180 °C (standard seals) / 25 ÷ 220 °C (high temperature seals)
Media	water, air, steam, inert or corrosive liquids and gases (compatible with the materials in contact)
Viscosity	600 cSt. max
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	316 stainless steel (DN8 ÷ DN80) / 304 stainless steel (DN100)
Seals	PTFE
Internal parts	316 stainless steel
SPECIFICATIONS PNEUMATIC ACTUATOR	
Actuator dimensions	Ø40 - Ø50 - Ø63 - Ø90 - Ø125 mm
Actuator material	304 stainless steel / aluminium (only for Ø125 mm)
Piston material	aluminium
Piston seal material	FKM
Piloting fluid	air or inert gases
Piloting pressure	10 bar max.
Actuator position	360° rotatable

CODING EXAMPLE

AS	X	2	1	-	W	015	G1	-	040	1	2	-	
AS	SERIES												
X	TYPE OF ACTUATOR X = metal actuator												
2	BODY MATERIAL 1 = 304 stainless steel (DN 100) 2 = 316 stainless steel (DN8 ÷ DN80)												
1	NUMBER OF WAYS - FUNCTIONS 0 = 2/2-way NO 1 = 2/2-way NC 3 = 2/2-way DA (Double Acting)												
W	FLOW DIRECTION W = under the seat (anti-water hammer) Y = above the seat												
015	NOMINAL DIAMETER 008 = DN 8 010 = DN 10 015 = DN 15 020 = DN 20 025 = DN 25 032 = DN 32 040 = DN 40 050 = DN 50 065 = DN 65 080 = DN 80 100 = DN 100 - only for flanged version with NC and DA function and pressure under the seat												
G1	BODY CONNECTION G1 = BSP thread DIN 228-1 T1 = BSPT thread DIN 2999-1 N1 = NPT thread ASME B1.20.1 H7 = welding ends DIN 11850-2 / DIN 11866-A H8 = welding ends DIN 11850-3 K7 = tri-clamp ISO 2852 F2 = flange DIN 2543												
040	ACTUATOR DIMENSION 040 = Ø40 mm 050 = Ø50 mm 063 = Ø63 mm 090 = Ø90 mm 125 = Ø125 mm												
1	ACTUATOR MATERIAL 1 = 304 stainless steel 8 = aluminium												
2	SEALS 2 = for standard temperatures -10 ÷ 180 °C 3 = for high temperatures 25 ÷ 220 °C												
	OPTIONS = none PS1 = NPN type proximity switch - NO contact - 10 ÷ 30 V DC power supply PS2 = NPN type proximity switch - NC contact - 10 ÷ 30 V DC power supply PS3 = PNP type proximity switch - NO contact - 10 ÷ 30 V DC power supply PS4 = NPN type proximity switch - NC contact - 10 ÷ 30 V DC power supply PS5 = SCR type proximity switch - NO contact - 20 ÷ 250 V AC power supply PS6 = SCR type proximity switch - NC contact - 20 ÷ 250 V AC power supply SL1 = stroke limiter for Ø50 - Ø63 mm actuators SL2 = stroke limiter for Ø90 mm actuators PI1 = position indicator for Ø40 - Ø50 - Ø63 - Ø90 mm actuators PI2 = position indicator for Ø125 mm actuators												

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue Series ASX, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Angle seat valves Series ASP

2/2-way - Normally Closed (NC) and Normally Open (NO)
2/2-way - Double Acting (DA)



The Series ASP angle seat valves are an efficient and cost-effective solution for fluid control. Their robustness is suitable for the most varied applications with inert gases and liquids, with steam or with fluids having solid particulates in suspension. Available with 3/8" to 2-1/2" threaded connections.

The operation is determined by the pneumatic drive of a single acting, guided piston actuator with spring return. There are also models available with double acting actuators, without spring. For liquid media we recommend the models with flow direction under the seat. For gas or steam we recommend the models with flow direction above the seat.

GENERAL DATA

TECHNICAL FEATURES

Function	2/2 NC - 2/2 NO - 2/2 Double Acting
Operation	pneumatic, poppet type
Pneumatic connections	3/8 ... 2-1/2" with BSP thread
Nominal diameter	DN10 ... DN65
Flow coefficient Kv (m ³ /h)	2.6 ... 65
Operating pressure	0 ÷ 6 ... 20 bar
Operating temperature	-20 ÷ 130 °C
Media	water, air, steam, inert liquids and gases (compatible with the materials in contact)
Viscosity	600 cSt. max
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM

Body	brass
Seals	EPDM
Internal parts	304 stainless steel

SPECIFICATIONS PNEUMATIC ACTUATOR

Actuator dimensions	Ø50 - Ø63 - Ø80 - Ø100 mm
Actuator material	PA66 polyamide 30% GF
Piston material	aluminium
Piston seal material	PUR
Piloting fluid	air or inert gases
Piloting pressure	10 bar max.
Actuator position	360° rotatable

CODING EXAMPLE

AS	P	A	1	-	W	015	G1	-	050	P	2
AS	SERIES										
P	TYPE OF ACTUATOR P = technopolymer actuator										
A	BODY MATERIAL A = brass										
1	NUMBER OF WAYS - FUNCTIONS 0 = 2/2-way NO 1 = 2/2-way NC 3 = 2/2-way DA (Double Acting)										
W	FLOW DIRECTION W = under the seat (liquids and gases, anti-water hammer) Y = above the seat (gases)										
015	NOMINAL DIAMETER 010 = DN 10 015 = DN 15 020 = DN 20 025 = DN 25 032 = DN 32 040 = DN 40 050 = DN 50 065 = DN 65										
G1	BODY CONNECTION G1 = BSP thread DIN 228-1										
050	ACTUATOR DIMENSION 050 = Ø50 mm 063 = Ø63 mm 080 = Ø80 mm 100 = Ø100 mm										
P	ACTUATOR MATERIAL P = PA66 polyamide 30% GF										
2	SEALS Z = for standard temperatures -20 ÷ 130 °C										

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue Series ASP, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Solenoid, pneumatic and manifold valves, where you will find all compatible accessories as well.

Solenoids GP... - B7... - G93 - U7... - U7...EX - G7... - A8... - B8... - H8... - B9...

Version A and B
Connections according to industrial standard
and to DIN EN 175 301-803 standards

Solenoids Mod. GP..

In compliance with industrial standard (9.4mm) and designed to be mounted only on Series AP proportional valves, size 16 mm.

Electrical connection: bipolar
Norm: industrial standard (9.4 mm)

Solenoid material: PA



Mod.	Solenoid voltage	Power absorption
GPH	12 V DC	3 W
GP7	24 V DC	3 W

Solenoids Mod. B7...

To be used only with Series CFB solenoid valves.

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B

Solenoid material: PA-MXD6



Mod.	Solenoid voltage	Power absorption
B7B	24 V - 50/60 Hz	9 VA
B7D	110 V - 50/60 Hz	9 VA
B7E	230 V - 50/60 Hz	9 VA
B7H	24 V - 50/60 Hz	4 VA
B72	12 V - DC	10 W
B721	12 V - DC	14 W
B73	24 V - DC	10 W
B731	24 V - DC	14 W
B74	24 V - DC	7 W

Solenoids Mod. G93 (with memory)

Special solenoids with incorporated memory for pulsed operation.

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B
Voltage tolerance: ±10%



Mod.	Voltage	Minimum impulse latch/release	Consumption latch/release
G92	12 V DC	18 ms - 10 ms	200 mA - 160 mA
G93	24 V DC	18 ms - 10 ms	100 mA - 80 mA

Solenoids Mod. U7... / U7*EX and Mod. G7...

Standard solenoids are certified by UL as Recognized Component for USA and Canada. Solenoids Mod. U7 are available also with ATEX certification.

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B
Solenoid material: U7* = PET; G7* = PA
To order the ATEX version of Mod. U7 (not available for Mod. U7F, U7K1 with voltage 125V 50/60Hz) it is necessary to add EX at the end of the code.

Mod. U7*EX marked:
II 3G Ex nA IIC T4 Gc X IP65
II 3D Ex tc IIC 130°C Dc X



Mod.	Solenoid voltage (1)	Power absorption (1)	Solenoid voltage (2)	Power absorption (2)	Solenoid voltage (3)	Power absorption (3)
U7H	12 V DC	3.1 W	24V - 50/60 Hz	3.5 VA		
G7H	12 V DC	3.1 W	24V - 50/60Hz	3.5 VA		
U7K	110V - 50/60Hz	3.8 VA	125V - 50/60Hz	5.5 VA	72 V DC	4.8 W
U7K1	110V - 50/60Hz	5.8 VA	125V - 50/60Hz	8.3 VA	72 V DC	5.6 W
G7K	110V - 50/60Hz	3.8 VA	125V - 50/60Hz	5.5 VA	72 V DC	4.8 W
G7K1	110V - 50/60Hz	5.8 VA	125V - 50/60Hz	8.3 VA	72 V DC	5.6 W
U7J	230V - 50/60Hz	3.5 VA	240V - 50/60Hz	4 VA		
G7J	230V - 50/60Hz	3.5 VA	240V - 50/60Hz	4 VA		
U79	48 V DC	3.1 W				
G79	48 V DC	3.1 W				
U710	110 V DC	3.2 W				
G710	110 V DC	3.2 W				
U77	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
U771	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
G77	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
G771	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
U7F	380V - 50/60Hz	7 VA				
U72	12 V DC	5 W				
G72	12 V DC	5 W				
U73	24 V DC	5 W				
G73	24 V DC	5 W				

Mod. U7K1, G7K1, U771 and G771 are to be used only with sol. valves series A, NO in line.

Solenoids Mod. A8...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A



Mod.	Solenoid voltage	Power absorption
ABB	24V - 50/60Hz	5VA
ABD	110V - 50/60Hz	5VA
ABE	220V - 50/60Hz	5VA
AB3	24V DC	4W

Solenoids Mod. B8...

To be used only with Series CFB solenoid valves.

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

Solenoid material: PA-MXD6

The B8*K models can be used only with some solenoid valves Series CFB (Mod. CFB-D1..., 2/2 NO). Further details in the Series CFB section.



Mod.	Solenoid voltage	Power absorption
BBB	24 V - 50 Hz	15 VA
BBBK	24 V - 50 Hz	15 VA
BBD	110 V - 50/60 Hz	15 VA
BBDK	110 V - 50/60 Hz	15 VA
BBE	220/230 V - 50/60 Hz	15 VA
BBEK	230 V - 50/60 Hz	15 VA
BBF	220/230 V - 50/60 Hz	21 VA
BBFK	220/230 V - 50/60 Hz	21 VA
B82	12 V - DC	19 W
B82K	12 V - DC	19 W
B83	24 V - DC	19 W
B83K	24 V - DC	19 W

Solenoid Mod. H8.. for potentially explosive ambients

Explosion-proof solenoids suitable for potentially explosive ambients (ATEX, IECEx).

Certification in compliance with
EN 60079-0 EN 60079-18
ATEX :
II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIC T135°C Db
I M2 Ex mb I Mb
INERIS 06ATEX0002X

IECEX :
Ex mb IIC T4 Gb
Ex mb IIC T135°C Db
Ex mb I Mb
IECEX INE 15.0053X

For Series NA use plate mod. NA54-PC.



Mod.	Solenoid voltage	Power absorption
H83I	24 V - DC	5.3 W
H8BI	24 V - 50/60 Hz	5.3 W
H8CI	48 V - 50/60 Hz	5.3 W
H8DI	110 V - 50/60 Hz	5.3 W
H8EI	230 V - 50/60 Hz	5.3 W

Temperature class/Max surface temperature: T4/135°C
Environment temperature: -20°C + 40°C
Connection: tripolar cable 3 m (other lengths on request)
Incapsulating material: self-extinguishing PA.

Solenoids Mod. B9...

To be used only with Series CFB solenoid valves.

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

Solenoid material: PA-MXD6



Mod.	Solenoid voltage	Power absorption
B9B	24 V - 50 Hz	29 VA
B9D	110 V - 50/60 Hz	29 VA
B9E	230 V - 50 Hz	29 VA
B93	24 V - DC	30 W

Connectors Mod. 122-... DIN EN 175 301-803-B

For solenoids Mod. U7/U7*EX, G7 and B7

Mod. 122-800EX:
for ATEX certified solenoids mod. U7*EX, with anti-screwing off screw mod. TORX.



Mod.
122-601
122-701
122-702
122-703
122-800
122-800EX

Connectors Mod. 122-571 DIN EN 175 301-803-B with cable

For solenoids Mod. U7, G7 and B7



Mod.
122-571-1
122-571-2
122-571-3
122-571-5
122-571-10

Connectors Mod. 122-89*C DIN EN 175 301-803-B

For solenoids Mod. G9



Mod.
122-892C
122-893C

Connector Mod. 124-... DIN EN 175 301-803-A

For solenoids Mod. A8 and Mod. B8/B9

Protection class IP65



Mod.
124-800
124-702
124-701
124-703

Mechanically operated minivalves Series 2

3/2-way
Ports M5, cartridge $\varnothing 4$



Series 2 mechanically operated miniature valves, 3/2-way normally closed, are available with M5 threaded ports or with an integrated super-rapid fitting for $\varnothing 4$ mm tubes.

The devices are actuated by a plunger, roller/lever or a unidirectional lever.

GENERAL DATA

Construction	poppet type
Valve group	3-way/2-position
Materials	aluminium body, brass plunger, NBR seals
Mounting	by means of screws in the through-holes of the valve body
Ports	M5, $\varnothing 4$ mm cartridge
Room temperature	0°C ÷ 60°C
Fluid temperature	0°C ÷ 50°C
Operating pressure	2 bar ÷ 10 bar
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

2	3	4	-	94	5
2	SERIES				
3	FUNCTION 3 = 3/2-way NC 4 = 3/2-way NO				
4	PORTS 4 = cartridge $\varnothing 4$ mm 5 = M5				
94	ACTUATION 94 = plunger 95 = lever/roller 96 = unidirectional lever 98 = plunger, panel mounting				
5	RESETTING 5 = spring return				

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 2, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Mechanical and manual valves.

Mechanically operated valves Series 1 and 3

Series 1: 3/2-way and 5/2-way, ports G1/8 and G1/4
Series 3: 3/2-way and 5/2-way, ports G1/8



These mechanically operated valves have been designed with three different types of actuation:

- plunger
 - lever/roller
 - unidirectional lever/roller
- In each case, return is triggered by a mechanical spring.

3/2-way monostable valves Series 3 are normally closed in the rest position when pressure is supplied in 1 and are normally open when pressure is supplied on connection 3, the user port 2 remaining unchanged.

5/2-way valves Series 3 can be supplied via the ports 3 and 5 with two different pressures if a cylinder has to be operated using a delivery pressure which is different from the return pressure.

GENERAL DATA

Construction	spool-type (Series 3), poppet-type (Series 1)
Valve group	3/2, 5/2 way/pos.
Materials	aluminium body, brass poppet, stainless steel spool, NBR seals
Ports	G1/8, G1/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

3	3	8	-	94	5
3	SERIES 1 3				
3	FUNCTION 3 = 3/2 ways NC 4 = 3/2 ways NO (only Series 1) 5 = 5/2 ways				
8	PORTS 8 = G1/8 4 = G1/4 (only Series 1)				
94	ACTUATION 94 = plunger 95 = lever/roller 96 = unidirectional roller				
5	RESETTING 5 = spring return				

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 1 and 3, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Mechanical and manual valves.

Mechanically operated sensor valves Series 3 and 4

3/2 and 5/2-way
Ports G1/8, G1/4



The particular mechanical device allows these end-stroke valves to operate with very low actuating forces.

Series 3 has been designed with a mechanical lever device which works in negative pressure. To increase sensitivity it is possible to add to the lever a steel extension with $\varnothing 3$ mm.

GENERAL DATA

Construction	spool-type (servocontrolled)
Valve group	3/2, 5/2 way/pos.
Materials	aluminium body, stainless steel spool, NBR seals
Ports	G1/8, G1/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

3	3	8	-	D15	-	9A5
----------	----------	----------	----------	------------	----------	------------

3	SERIES 3 4
3	FUNCTION 3 = 3/2-way NC 4 = 3/2-way NO 5 = 5/2-way
8	PORTS 8 = G1/8 4 = G1/4
D15	ACTUATION D15 = pressure drop/spring 015 = pressure/spring 011 = pressure/pressure
9A5	DEVICES 9A5 = lever sensor, spring return 194 = plunger sensor, spring return 294 = plunger sensor, bistable 195 = lever/roller, spring return 295 = lever/roller, bistable

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 3 and 4, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Mechanical and manual valves.

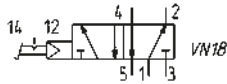
New models

Foot operated pedal Electrical and pneumatic - Series 3 Pneumatic - Series 2

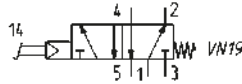
Series 3: G1/4, 5/2-way - NC / NO contacts
Series 2: M5; 4/2 tube; 3/2-way NC

Pneumatic foot operated pedal Series 3

Actuating force at 6 bar = 17N
Operating pressure = 2,5 ÷ 8 bar
Flow rate = 650NL/min.



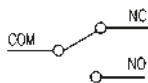
VN18 = pedal operated valve 5/2 bistable



VN19 = pedal operated valve 5/2 monostable bistable

Mod.
GPH
354N-925

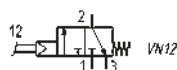
Electrical foot operated pedal Series 3



Mod.
3E2-925

Pneumatic foot operated pedal Series 2

Operating pressure = 2 ÷ 8 bar
Flow rate = 60 NL/min.



Mod.
234N-925
235N-925

Manually operated console minivalves Series 2

3/2 NC, NO
Ports M5, Cartridge Ø 4



This series of miniature valves has been especially designed to satisfy all the application requirements of the controls industry with particular attention paid to the

operating characteristics required from these components:
- short operational stroke
- small dimensions

GENERAL DATA

Valve group	3/2 NC, NO 5/2 and 5/3 CO
Construction	poppet-type (closed centres)
Materials	aluminium body, brass plunger, NBR seals
Mounting	panel
Ports	M5 or cartridge dia. 4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C

CODING EXAMPLE

2	3	4	-	97	5
2	SERIES				
3	FUNCTION 3 = 3/2-way NC 4 = 3/2-way NO 8 = 5/3-way CO (function realized with 2x 3/2-way NC valves)				
4	PORTS 4 = cartridge Ø 4 5 = M5				
97	MODE OF OPERATION 87 = 3 position selector 89 = push button 97 = palm switch 90 = joystick 99 = 2 position selector 92 = pedal 904 = key				
5	RESETTING 5 = spring return 0 = stable 2 = latching-twist to release 54 = joystick				

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 2, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Mechanical and manual valves.

Manually operated valves Series 1, 3, 4 and VMS

Series 1, 3 and 4: 3/2-, 5/2- and 5/3-way CC, CO; ports G1/8, G1/4
Series VMS: 3/2-way; ports M5, G1/8, G1/4, G3/8, G1/2 and G3/4



Series 3 manual valves (G1/8) and Series 4 (G1/4), 3/2-, 5/2- and 5/3-way, are available with several devices designed to satisfy different needs.

Series 1 is provided with two devices: pushbutton (3/2-way) and lever (3/2 and 5/2-way).

Series VMS valves are 3/2-way slide valves which are available with ports M5, G1/8, G1/4, G3/8, G1/2 and G3/4.

The 3/2-way valves Series 3 and 4 are normally closed when 1 is the inlet and they can also be normally open when 3 is the inlet.

Series 3 and 4 5/2-way valves can be supplied via ports 3 and 5 with two different pressures, if a cylinder has to be operated using a delivery pressure which is different from the return pressure.

GENERAL DATA

Construction	Series 3 and 4: spool-type - Series 1: poppet-type - Series VMS: slide
Function	Series 1, 3 and 4: 3/2 - 5/2 - 5/3 ways CC CO - Series VMS: 3/2-way
Materials	aluminium body, stainless steel spool, brass poppet, NBR seals
Ports	Series 1, 3 and 4: G1/8, G1/4 - Series VMS: M5, G1/8, G1/4, G3/8, G1/2, G3/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

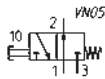
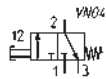
3	3	8	-	900
3	SERIES 1 - 3 - 4			
5	FUNCTION 3 = 3/2-way NC 5 = 5/2-way 6 = 5/3-way CC 7 = 5/3-way CO 8 = 5/3-way CP			
8	PORTS 8 = G1/8		4 = G1/4	
900	RESETTING 895 = pushbutton, monostable, black 896 = pushbutton, monostable, green 897 = pushbutton, monostable, red 900 = lever, bistable 905 = lever, monostable 910 = knob, bistable 915 = knob, monostable 935 = digital monostable 975 = palm-switch, monostable, black 976 = palm-switch, monostable, green 977 = palm-switch, monostable, red 990 = switch, bistable			

NOTE: to check possible combinations and codes that can be ordered, please consult the complete catalogue of Series 1, 3, 4 and VMS, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Mechanical and manual valves.

Mini-handle valves Series 2

Handle with incorporated micro valve 3/2 NC and NO
Handle with incorporated micro switch

Handle 3/2 NC and NO

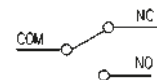


Mod.
234-885

Mod.
244-885



Handle



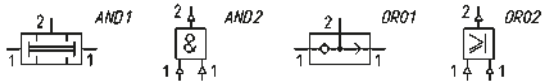
Mod.
234-88E
234-88E



Basic logic valves Series 2L

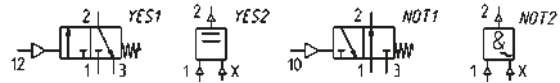
Cartridge Ø 4 mm
or - and - yes - not - memory

Basic logic valves AND / OR



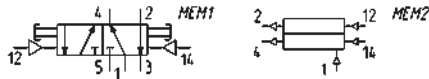
Mod.	Function	Pneumatic symbol	Logic symbol
2LD-SB4-B	AND	AND1	AND2
2LR-SB4-B	OR	OR01	OR02

Basic logic valves YES / NOT



Mod.	Function	Pneumatic symbol	Logic symbol
2LS-SB4-B	YES	YES1	YES2
2LT-SB4-B	NOT	NOT1	NOT2

Basic logic valves "Memory"



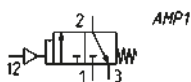
Mod.	Function	Pneumatic symbol	Logic symbol
2LM-SB4-B	Memory	MEM1	MEM2

Right-angled bracket



Mod.
2LQ-8A

Pneumatically operated 3/2 NC amplifier valve - G1/8 ports



Mod.
2LA-AM

Sender and receiver sensor Series 2L - M5 ports



Mod.	Type
2LB-SE	Sender
2LB-SR	Receiver

Circuit selector Mod. SCS

Ports: G1/8



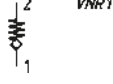

Mod.
SCS-668-06

Unidirectional valves Series VNR

Ports of Thread version: M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1
Dimensions of Tube/Tube version: Ø4; Ø6; Ø8; Ø10; Ø12

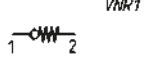




Mod.	
VNR-205-M5	VNR-234-3/4
VNR-210-1/8	VNR-201-01
VNR-843-07	
VNR-238-3/8	
VNR-212-1/2	

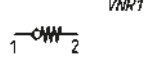

Mod.	
6580 4-VNR	6580 4-VNR-OX1*
6580 6-VNR	6580 6-VNR-OX1*
6580 8-VNR	6580 8-VNR-OX1*
6580 10-VNR	6580 10-VNR-OX1*
6580 12-VNR	6580 12-VNR-OX1*

* OX1 = for Oxygen (nonvolatile residue lower than 550 mg/m²)

Mod.	
VNR60 4-M5	VNR60 4-M5-OX1*
VNR60 6-1/8	VNR60 6-1/8-OX1*
VNR60 6-1/4	VNR60 6-1/4-OX1*
VNR60 8-1/8	VNR60 8-1/8-OX1*
VNR60 8-1/4	VNR60 8-1/4-OX1*

* OX1 = for Oxygen (nonvolatile residue lower than 550 mg/m²)






Mod.	
VNR60 M5-4	VNR60 M5-4-OX1*
VNR60 1/8-6	VNR60 1/8-6-OX1*
VNR60 1/4-6	VNR60 1/4-6-OX1*
VNR60 1/8-8	VNR60 8-1/8-OX1*
VNR60 1/4-8	VNR60 1/4-8-OX1*

* OX1 = for Oxygen (nonvolatile residue lower than 550 mg/m²)

Unidirectional valves in 316L stainless steel Series XVNR

Ports of Thread version: G1/8, G1/4, G3/8, G1/2 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT

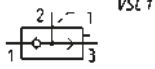



Mod.	
XVNR 1/8	XVNR 1/4PT
XVNR 1/4	XVNR 3/8PT
XVNR 3/8	XVNR 1/2PT
XVNR 1/2	
XVNR 1/8PT	

Quick exhaust valves Series VSO, VSC

Series VSO ports: M5, G1/8, cartridge $\varnothing 4$

Series VSC ports: G1/8, G1/4, G1/2



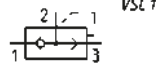
VSC 1



Mod.

VSO 425-M5

VSO 426-04

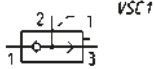


VSC 1



Mod.

VSO 4-1/8



VSC 1



Mod.

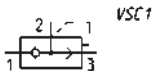
VSC 588-1/8

VSC 544-1/4

VSC 522-1/2

Quick exhaust valves in 316L stainless steel Series XVSC

Threads: G1/8, G1/4, G1/2, G3/8 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT



VSC 1



Mod.

XVSC 1/8 XVSC 1/4PT

XVSC 1/4 XVSC 3/8PT

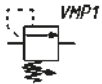
XVSC 3/8 XVSC 1/2PT

XVSC 1/2

XVSC 1/8PT

Adjustable overpressure exhaust valve Mod. VMR 1/8-B10

Ports: G1/8



Mod.
VMR 1/8-B10

Blocking valves Series VBO - VBU

New models

Unidirectional valves (VBU) and bidirectional valves (VBO)
Ports G1/8, G1/4, G3/8 and G1/2



Mod.
VBU 1/8
VBU 1/4
VBU 3/8
VBU 1/2



Mod.
VBO 1/8
VBO 1/4
VBO 3/8
VBO 1/2



Mod.
VBU 6 1/8
VBU 6 1/4
VBU 8 1/4
VBU 8 3/8
VBU 10 3/8
VBU 12 1/2

Flow control valves Series SCU, MCU, SVU, MVU, SCO, MCO

Unidirectional and bidirectional banjo flow control regulators
Ports: M5, G1/8, G1/4, G3/8, G1/2



These unidirectional and bidirectional flow controllers have been designed as small as possible so as to be mounted directly on valves or cylinders.

The great variety of adjustable fittings makes it possible to complete the regulator with the most suitable system in relation to the available tube.

Only the G1/2 model is supplied complete with banjo flow controllers. For the other models the banjo flow controller is to be requested separately.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body and regulation screw: M5 = stainless steel; 1/8 - 1/4 - 3/8 - 1/2 = OT; seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal diameter	M5 = 1,5 mm - G1/8 = 2 mm - G1/4 = 4 mm - G3/8 = 7 mm - G1/2 = 12 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in l/min, determine the stroke time of the cylinder, refer to graph to see which controller is the right type.

CODING EXAMPLE

M	CU	7	02	-	M5
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M	ACTUATION M = Manual - S = Screwdriver
CU	ASSEMBLY CU = on cylinders unidirectional - VU = on valves unidirectional - CO = bidirectional
7	VERSIONS 6 = needle (screwdriver operated) - 7 = needle (manual operated)
02	NOMINAL DIAMETER 02 = Ø 1,5 max - 04 = Ø 2 max - 06 = Ø 4 max - 08 = Ø 7 max - 10 = Ø 12 max
M5	PORTS M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4 - 3/8 = G3/8 - 1/2 = G1/2

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series SCU, MCU, SVU, MVU, SCO, MCO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Silenced exhaust controllers Mod. SCO + 2905

The flow control valve Mod. SCO and the silencer Mod. 2905 are supplied separately.

Mod.
SCO 602-M5+2905 M5
SCO 604-1/8+2905 1/8
SCO 606-1/4+2905 1/4

Series RSW flow control valves with silencer

Ports: G1/8, G1/4, G1/2.

Mod.
RSW 1/8
RSW 1/4
RSW 3/8
RSW 1/2

Flow regulators in 316L stainless steel Series XSCU, XSCO, XMFU and XMFO

Unidirectional and bidirectional banjo flow control regulators
Ports: G1/8, G1/4, G3/8, G1/2



These unidirectional and bidirectional flow regulators have a compact design that allows mounting directly

on valves or cylinders in environments with aggressive fluids or gases.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body and regulation screw: 316L stainless steel; FKM seals
Mounting	by male/female thread
Threads	G1/8, G1/4, G3/8, G1/2
Installation	in any position
Operating temperature	-10°C ÷ +120°C
Operating pressure	1 ÷ 10 bar (unidirectional regulator) 0 ÷ 10 bar (bidirectional regulator Series XMFO) 0 ÷ 8 bar (bidirectional regulator Series XSCO)
Nominal pressure	6 bar
Nominal diameter	XSCU, XSCO: G1/8 = 4,5 - G1/4 = 6 - G3/8 = 8 - G1/2 = 12 XMFU, XMFO: G1/8 = 7,2 - G1/4 = 7,2 - G3/8 = 12 - G1/2 = 12
Medium	filtered air without lubrication with the unidirectional and bidirectional flow regulators all fluids compatible with the materials of the bidirectional flow regulators

CODING EXAMPLE

X	M	CU	M5
----------	----------	-----------	-----------

X	= INOX
M	ACTUATION M = Manual S = Screwdriver
CU	ASSEMBLY CU = on cylinders unidirectional CO = bidirectional FU = unidirectional FO = bidirectional
M5	PORTS 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 1/2 = G1/2

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in NI/min, determine the stroke time of the cylinder, refer to graph to see which controller is the right type.

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series XSCU, XMCU, XSVU, XMVU, XSCO, XMCO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves

Series PSCU, PMCU, PSVU, PMVU, PSCO, PMCO

Unidirectional and bidirectional flow regulators with banjo in brass (M5) or in technopolymer (G1/8, G1/4, G3/8)
Ports: M5, G1/8, G1/4, G3/8



These unidirectional and bidirectional flow controllers have been designed as small as possible so as to be mounted directly on valves or cylinders.

The great variety of adjustable fittings makes it possible to complete the regulator with the most suitable system in relation to the available tube.

All models are supplied complete with banjo flow controllers.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body, regulation screw: stainless steel (M5), brass (G1/8 - G1/4 - G3/8) collet and insert = brass banjo: brass (M5), technopolymer (G1/8 - G1/4 - G3/8) controller = technopolymer - seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8
Installation	in any position
Operating temperature	0°C ÷ 60°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal diameter	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm - G3/8 = 7 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

P	M	CU		7	04	-	1/8	-	4
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P	SERIES
M	ACTUATION M = Manual - S = Screwdriver
CU	ASSEMBLY CU = on cylinders unidirectional - VU = on valves unidirectional - CO = bidirectional
7	VERSIONS 6 = needle (screwdriver operated) - 7 = needle (manual operated)
04	NOMINAL DIAMETER 02 = Ø1.5 MAX - 04 = Ø2 MAX - 06 = Ø4 MAX - 08 = Ø7 MAX
1/8	PORTS M5 = M5 - 1/8 = G1/8 - 1/4 = G1/4 - 3/8 = G3/8
4	TUBE 4 = Ø4 - 6 = Ø6 - 8 = Ø8 - 10 = Ø10 - 12 = Ø12

To ensure the right choice of unidirectional flow controller, proceed as follows:
calculate the quantity of air in NI/min, determine the stroke time of the cylinder, refer to graph to see which is the right type of controller.

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series PSCU, PMCU, PSVU, PMVU, PSCO, PMCO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves

Series TMCU, TMVU, TMCO

Unidirectional and bidirectional banjo flow controllers
with nominal diameter 2 - 3,8 - 5,8 - 8 mm
Ports: G1/8, G1/4, G3/8, G1/2



Series TMCU, TMVU, TMCO unidirectional and bidirectional flow controllers have been revised in order to decrease their dimensions and improve their flow rate characteristics.

Their construction allows for easy assembly to cylinders and valves and allows the regulation adjustment to be precise and gradual.

GENERAL DATA

Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	brass - technopolymer - NBR
Mounting	by male threaded
Threaded ports	G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0°C ÷ 60°C (with dry air -20°C)
Operating pressure	0,5 ÷ 10 bar
Nominal pressure	6 bar
Nominal diameter	Tube 4 Ø2 - Tube 6 Ø3,8 - Tube 8 Ø5,8 - Tube 10 and 12 Ø8
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

TM	CU		9	74	-	1/8	-	6
----	----	--	---	----	---	-----	---	---

TM	ACTUATION TM = manual
CU	ASSEMBLY CU = on cylinders unidirectional - VU = on valves unidirectional - CO = bidirectional
9	VERSIONS 9 = manual needle
74	REGULATION step - Ø tube 72 = 2 4 74 = 3,8 6 76 = 5,8 8 78 = 8 10
1/8	PORTS 1/8 - 1/4 - 3/8 - 1/2
6	Ø TUBE 4 - 6 - 8 - 10

To ensure the right choice of unidirectional flow controller, proceed as follows:
calculate the quantity of air in NI/min, determine the stroke time of the cylinder, refer to graph to see which controller is the right type.

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series TMCU, TMVU, TMCO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves

Series GSCU, GMCU, GSVU, GMVU, GSCO, GMCO

Unidirectional and bidirectional banjo flow controllers with nominal diameter 1,5 - 3,5 - 5 mm
Ports: M5, G1/8 and G1/4



These unidirectional and bidirectional flow controllers have been designed as small as possible to enable mounting directly on valves or cylinders.

The flow regulation range is wide and gradual, allowing the regulation to be very accurate either at minimum or maximum flow.

GENERAL DATA

Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	body and screws M5 stainless steel; 1/8 - 1/4 - 3/8 - 1/2 brass; seals NBR
Mounting	by male threaded
Installation	in any position
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal diameter	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm G3/8 = 7 mm - G1/2 = 12 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

GM	CU	9	03	-	1/8	-	6
-----------	-----------	----------	-----------	----------	------------	----------	----------

GM	ACTUATION GM = manual - GS = screwdriver
CU	ASSEMBLY CU = on cylinders unidirectional - VU = on valves unidirectional - CO = bidirectional
9	VERSIONS 8 = needle (screwdriver operated) - 9 = needle (manually operated)
03	FLOW CONTROL RANGE size Ø tube 13 = 1.5 3 14 = 1.5 4 03 = 3.5 6 04 = 3.5 8 05 = 5 8 06 = 5 10
1/8	PORTS M5 - 1/8 - 1/4
6	Ø TUBE 3 - 4 - 6 - 8 - 10

To ensure the right choice of unidirectional flow controller, proceed as follows:
calculate the quantity of air in NL/min, determine the stroke time of the cylinder, refer to graph to see which controller is the right type.

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series GSCU, GMCU, GSVU, GMVU, GSCO, GMCO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves

Series RFU and RFO

Unidirectional and bidirectional. Ports: M5, G1/8, G1/4, G3/8 and G1/2
 Nominal diameters: 1,5 mm (M5), 2 and 3 mm (G1/8),
 4 and 6 mm (G1/4), 7 mm (G3/8 and G1/2)



The unidirectional flow controllers are equipped with M5, G1/8, G1/4, G3/8 and G1/2 ports. G1/8 and G1/4 ports are available with two different types of adjustment, whereas M5, G3/8 and G1/2 ports have just one type of adjustment. All models can be panel or wall mounted or they can be mounted on cylinders, as required.

To choose the most suitable model, it is recommended to:

1. calculate the quantity of air in NL/min ;
2. determine the stroke time of the cylinder;
3. check the flow diagrams.

GENERAL DATA

Construction	needle-type
Valve group	unidirectional and bidirectional controller
Materials	AL body - brass needle (not nickel-plated) - NBR seals
Mounting	with screws in the holes of the valve body or panel mounted
Threaded ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
Installation	as required
Operating temperature	$0^{\circ}\text{C} \div 80^{\circ}\text{C}$ (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar (for models with M5 - G1/8 - G1/4 ports) 2 ÷ 10 bar (for models with G3/8 - G1/2 ports)
Nominal pressure	6 bar
Nominal diameter	M5 = 1,5 - G1/8 = 2 or 3 mm - G1/4 = 4 or 6 mm - G3/8 and G1/2 = 7 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

RF	U		4	8	2	-	1/8
----	---	--	---	---	---	---	-----

RF	SERIES
U 4	FUNCTION U 4 = unidirectional - 0 3 = bidirectional
8	PORTS 4 = G1/4 - 5 = M5 - 6 = G3/8 - 7 = G1/2 - 8 = G1/8
2	FLOW CONTROL RANGE 2 = \varnothing 1.5 mm max (for ports M5) \varnothing 2 mm max (for ports 1/8 only) 3 = \varnothing 3 mm max (for ports 1/8 only) 4 = \varnothing 4 mm max (for ports 1/4 only) 6 = \varnothing 6 mm max (for ports 1/4 only) 7 = \varnothing 7 mm max (for ports 3/8, 1/2 only)
1/8	PORTS M5 - 1/8 - 1/4 - 3/8 - 1/2

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series RFU and RFO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves in 316L stainless steel Series XRFU and XRFO

Unidirectional and bidirectional.

Threads: G1/8, G1/4, G3/8, G1/2 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT.

Nominal diameter: 6 mm (G1/8), 6 mm (G1/4), 9 mm (G3/8), 10 mm (G1/2),
6 mm (PT1/8), 6 mm (PT1/4), 9 mm (PT3/8), 10 mm (PT1/2)



The unidirectional and bidirectional flow controllers are equipped with G1/8, G1/4, G3/8 and G1/2 ports. All models can be used in environments with aggressive fluids or gases.

GENERAL DATA

Construction	needle-type
Valve group	unidirectional and bidirectional controller
Materials	body in 316L stainless steel, FKM seals
Mounting	with screws in the holes of the valve body or panel mounted
Threads	G1/8, G1/4, G3/8, G1/2 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT
Installation	in any position
Operating temperature	-15 ÷ +120°C
Operating pressure	-0,5 ÷ +16 bar (unidirectional regulator) 0 ÷ 40 bar (bidirectional regulator)
Nominal pressure	6 bar
Nominal diameter	G1/8 = 6 - G1/4 = 6 - G3/8 = 9 - G1/2 = 10 - PT1/8 = 6 - PT1/4 = 6 - PT3/8 = 9 - PT1/2 = 10
Medium	filtered air without lubrication with unidirectional and bidirectional flow control valves all fluids compatible with the materials of the bidirectional flow control valves

CODING EXAMPLE

X	RF	U	1/8	PT
X	= INOX			
RF	SERIE			
U	FUNCTION U = unidirectional O = bidirectional			
1/8	PORTS 1/8 1/4 3/8 1/2			
PT	PORTS = gas PT = NPT			

NOTE: to check flow rates and possible combinations, please consult the complete catalogue of Series XRFU e XRFO, available online on the Camozzi Catalogue website at section VALVES AND SOLENOID VALVES > Flow control valves.

Flow control valves Series 28

Bidirectional
Ports: G1/8, G1/4, G3/8, G1/2



RF01



Mod.
2810 1/8
2810 1/4
2810 3/8
2810 1/2



RF01



Mod.
2820 1/8
2820 1/4
2820 3/8
2820 1/2



RF01



Mod.
2830 1/8
2830 1/4
2830 3/8
2830 1/2



RF01



Mod.
2819 1/8
2819 1/4



RF01



Mod.
2829 1/8
2829 1/4



RF01

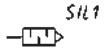


Mod.
2839 1/8
2839 1/4
2839 3/8
2839 1/2

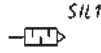
Silencers

Series: 2901, 2903, 2921, 2931, 2938, 2939, 2905

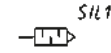
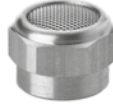
Ports: M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1



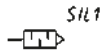
- Mod.
- 2901 M5
- 2901 1/8
- 2901 1/4-17
- 2901 1/4-22
- 2901 3/8
- 2901 1/2
- 2901 3/4
- 2901 1



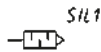
- Mod.
- 2903 1/8



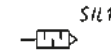
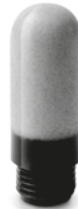
- Mod.
- 2921 1/8
- 2921 1/4
- 2921 3/8
- 2921 1/2
- 2921 3/4
- 2921 1



- Mod.
- 2931 M5
- 2931 M7
- 2931 1/8
- 2931 1/4
- 2931 3/8
- 2931 1/2
- 2931 3/4
- 2931 1



- Mod.
- 2938 M5
- 2938 1/8
- 2938 1/4
- 2938 3/8
- 2938 1/2



- Mod.
- 2939 4
- 2939 6
- 2939 8
- 2939 10



For flow control valves Mod. SCO and MCO
(see the dedicated section)

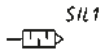
- Mod.
- 2905 1/8
- 2905 1/4
- 2905 3/8



Silencers in 316L stainless steel

Series: X2901

Threads: G1/8, G1/4, G3/8, G1/2, G3/4, G1 1/8NPT, 1/4NPT, 3/8NPT, 1/2NPT, 3/4NPT, 1NPT

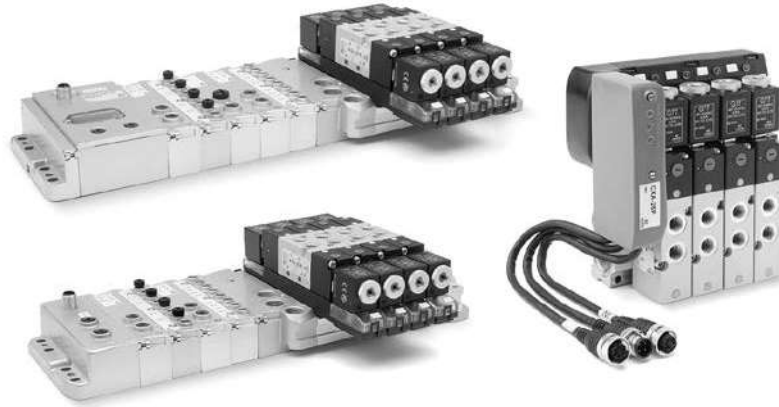


Mod.	
X2901 1/8	X2901 1/4PT
X2901 1/4	X2901 3/8PT
X2901 3/8	X2901 1/2PT
X2901 1/2	X2901 3/4PT
X2901 3/4	X2901 1PT
X2901 1	
X2901 1/8PT	



Plug-In valve islands, Multipole and Fieldbus Series 3

Plug-In system for Series 3 solenoid valves, G1/8 port.
Valve functions: 2x3/2; 5/2 and 5/3-way CO, CC, CP.
Multipole with a 25-pin Sub-D connector.
It can interface with all major serial communication protocols.



The Multipole version of Series 3 Plug-In valve island can be easily installed thanks to the front position of the Sub-D connector. The accessories of the new connection system to the Series CX serial nets enable to handle up a multipole valve island by means of a Sub-D connector or through a node integrated in the island. The modularity of the electric and pneumatic parts allows to install up to a maximum of 22 solenoids on 22 valve positions.

The electric and pneumatic modules have 2- and 3-position modularity. To optimize the signals distribution, electric modules are available for monostable and bistable valves. The pneumatic modularity enables the creation of zones with differentiated pressure.

Manuals, instruction sheets and configuration files can be found on <http://shop.camozzi.com> or on the QR code on the label of the product.

The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series 3 Plug-In catalogue, which is available online on the Camozzi Catalogue website (see section FIELD BUS AND MULTIPOLE SYSTEMS > Valve islands > Series 3 Plug-In valve islands, Multipole and Fieldbus).

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool type with seals
Valve functions	5/2 - 5/3 CC - 5/3 CO - 5/3 CP - 2x3/2 NO - 2x3/2 NC - 1x3/2 NO + 1x3/2 NC
Materials	AL body, stainless steel spool, NBR seals, technopolymer
Mounting	through-out holes in the manifold
Ports	valve = G1/8 - manifold = G3/8
Installation	in any position
Operating temperature	from 0°C to 60°C (with dry air at -20°C)
Nominal flow rate	Qn 700 Nl/min
Nominal diameter	7 mm
Fluid	Filtered air, class [7:4:4] according to ISO 8573-1:2010, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil, and to never interrupt the lubrication.
ELECTRICAL SECTION - MULTIPOLE VERSION	
Max absorption	3 A
Type of connection	Multipole 25-pin male Sub-D
Supply voltage	24 V DC +/- 10%
Max number of solenoids	22 on 22 valve positions
Signalling	yellow LED
Duty cycle	ED 100%
Protection class	IP65
ELECTRICAL SECTION - FIELDBUS VERSION	
General characteristics	see the section about the Series CX multi-serial module
Max absorption	digital outputs/analogic inputs and outputs 3A digital/analogic inputs 3 A
Voltage tolerances	logic supply 24 V DC +/- 10% power supply 24 V DC +/- 10%

CODING EXAMPLE - MULTIPOLE VERSION

3	P	8	-	03A	-	BDACAC	-	2BC3MU2BMXU2B2M	-	G77
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3	SERIES
P	TYPE P = Plug-In
8	SIZE 8 = 1/8
03A	CONNECTION 000 = no connector/cable CONNECTOR WITH CABLE AXIAL OUTPUT 03A = 3 m 05A = 5 m 10A = 10 m 15A = 15 m 20A = 20 m 25A = 25 m CONNECTOR WITH CABLE RADIAL OUTPUT 03R = 3 m 05R = 5 m 10R = 10 m 15R = 15 m 20R = 20 m 25R = 25 m CONNECTOR WITHOUT CABLE 4XA = 25-pin axial 4XR = 25-pin radial
BDACAC	CONFIGURATION OF SUBBASE A = 2 positions with bistable board B = 3 positions with bistable board C = 2 positions with monostable board D = 3 positions with monostable board
2BC3MU2BMXU2B2M	VALVE FUNCTION E = empty position M = 5/2 Monostable, internal servo-pilot supply B = 5/2 Bistable, internal servo-pilot supply C = 2x3/2 NC, internal servo-pilot supply A = 2x3/2 NO, internal servo-pilot supply G = 1x3/2 NC + 1x3/2 NO, internal servo-pilot supply H = 5/3 Closed Centres, internal servo-pilot supply K = 5/3 Exhaust Centres, internal servo-pilot supply N = 5/3 Pressure Centres, internal servo-pilot supply D = 5/2 Monostable, external servo-pilot supply Y = 5/2 Bistable, external servo-pilot supply Q = 2x3/2 NC, external servo-pilot supply R = 2x3/2 NO, external servo-pilot supply S = 1x3/2 NC + 1x3/2 NO, external servo-pilot supply V = 5/3 Closed Centres, external servo-pilot supply Z = 5/3 Exhaust Centres, external servo-pilot supply W = 5/3 Pressure Centres, external servo-pilot supply L = plate with closed free position X = supply plate and supplementary exhausts T = diaphragm on channels 1, 3, 5 U = diaphragm in supply 1 J = diaphragm exhausts 3 and 5
G77	SOLENOID MATERIAL G = PA U = PET

3P8-03R-ADCB-2B3MT2M3V-G77: valve island with 10 positions, radial connector and 3-meter cable.

Bases: the first with 2 bistables positions, the second with 3 monostable pos., the third with 2 monostable pos., the fourth with 3 bistable pos.

Valves: 2 bistable, 3 monostables, diaphragm on channels 1,3,5, 2 monostables, 3 Closed Centres, 24 V Solenoids.

CODING EXAMPLE - FIELDBUS VERSION

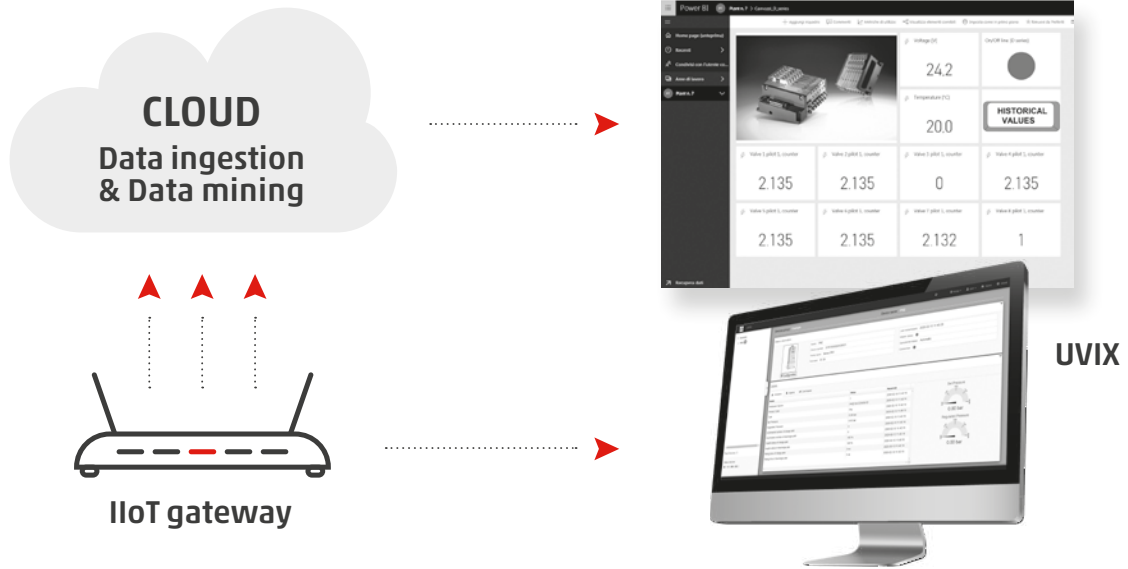
3 S 8 - 01 - 2AQRS - BDACAC - 2BC3MU2BMXU2B2M - G77

3	SERIES
S	CONNECTION S = Fieldbus
8	SIZE 8 = 1/8
01	PROTOCOL 01 = PROFIBUS-DP 02 = DeviceNet 03 = CANopen 04 = EtherNet/IP 05 = EtherCAT 06 = PROFINET 99 = Expansion Module
2AQRS	INPUT / OUTPUT MODULES 0 = no module A = 8 digital inputs M8 B = 4 digital inputs M8 C = 2 analog inputs 4-20 mA D = 2 analog inputs 0-10 V E = 1 analog input 4-20 mA + 1 input 0-10 V Q = 4 M12 duo digital outputs R = 2 analog outputs 4-20 mA T = 2 analog outputs 0-10 V U = 1 analog output 4-20 mA + 1 output 0-10 V V = 1 analog output 4-20 mA + 1 input 0-10 V Z = 1 analog output 4-20 mA + 1 input 4-20 mA K = 1 analog output 0-10 V + 1 input 0-10 V Y = 1 analog output 0-10 V + 1 input 4-20 mA S = Initial subnet module
BDACAC	CONFIGURATION OF SUBBASE A = 2 positions with bistable board B = 3 positions with bistable board C = 2 positions with monostable board D = 3 positions with monostable board
2BC3MU2BMXU2B2M	VALVE FUNCTION E = empty position M = 5/2 Monostable, internal servo-pilot supply B = 5/2 Bistable, internal servo-pilot supply C = 2x3/2 NC, internal servo-pilot supply A = 2x3/2 NO, internal servo-pilot supply G = 1x3/2 NC + 1x3/2 NO, internal servo-pilot supply H = 5/3 Closed Centres, internal servo-pilot supply K = 5/3 Exhaust Centres, internal servo-pilot supply N = 5/3 Pressure Centres, internal servo-pilot supply D = 5/2 Monostable, external servo-pilot supply Y = 5/2 Bistable, external servo-pilot supply Q = 2x3/2 NC, external servo-pilot supply R = 2x3/2 NO, external servo-pilot supply S = 1x3/2 NC + 1x3/2 NO, external servo-pilot supply V = 5/3 Closed Centres, external servo-pilot supply Z = 5/3 Exhaust Centres, external servo-pilot supply W = 5/3 Pressure Centres, external servo-pilot supply L = plate with closed free position X = supply plate and supplementary exhausts T = diaphragm on channels 1, 3, 5 U = diaphragm in supply 1 J = diaphragm exhausts 3 and 5
G77	SOLENOID MATERIAL G = PA U = PET

CoilVision® technology

CoilVision® technology has been developed to constantly monitor the operating parameters of the solenoid that drives the spool. Each operation of the solenoid, in different cyclic

configurations and environmental conditions, is analysed to acquire information that is processed by software algorithms to diagnose and predict the health status of the component.



Series D
valve island



Series PRE
Proportional pressure regulator



Series DRCS
Drive for motors



DIAGNOSTIC CHARACTERISTICS

ON/OFF status of each valve

Health status

Short circuit or solenoid fault

Temperature monitoring of the Master module and the solenoids

Interrupted solenoid

Over and under voltage

Cycle counter

Power consumption

Valve islands, Size 1, Multipole and Fieldbus Series D

Fieldbus connection with the most common communication protocols PROFIBUS-DP, PROFINET, CANopen, EtherNET/IP, EtherCAT and IO-Link
 Multipole connection with 25 or 44 pins
 Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC, CO, CP



Thanks to the large range of options available, the Series D valve island represent an excellent solution for all those applications that require pneumatic and electrical functions in restricted spaces.

The different electrical connection possibilities allow to create Islands with a high number of valve positions and different pressure zones. Moreover, the fieldbus version can manage both digital and analog electric input and output signals.

It is possible to configure the code of islands without the Fieldbus communication cover. The cover with the desired Fieldbus can be assembled next, after installation. Just like the pneumatic section, it is possible to equip the island with free electric modules for subsequent setups with different I/O configurations. It is not necessary to disassemble and disconnect the island from the machine.

Small dimensions, high flows, subbases with individual pneumatic and electric modules, an easy subbase connection system, constant diagnosis and monitoring of performance parameters make this series a particularly innovative product.

One of the features of this series is the monitoring function regarding the correct operating of the solenoid valve. The electronics installed both in the subbase and in the Sub-D and multi-serial connection module, enables to constantly monitor the efficiency of the driving coil of the solenoid valve.

Possible variations with respect to the ideal operating conditions, for example a higher power consumption, variation in response times and an increased temperature are indicated through different ways of blinking by the LED on the solenoid valve and by an electric alert signal that is sent to the PLC through the Sub-D module connecting cable or, in case of the multi-serial connection module, directly through the communication protocol.

Manual, instruction sheet and configurator are available on the site <http://shop.camozzi.com> or by means of the QR code on the product's label.

The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series D1 valve islands catalogue, which is available online on the Camozzi Catalogue website (see section FIELD BUS AND MULTIPOLE SYSTEMS > Valve islands > Series D1 valve islands, Multipole and Fieldbus).

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC, CO, CP 2x3/2 NC 2x3/2 NO 2x2/2 NC 2x2/2 NO + 1x2/2 NC 1x2/2 NO
Materials	spool: AL spool seals: HNBR other seals: NBR body: AL end caps: polymer subbase size 1: polymer
Connections	outlet 2 and 4, size 10,5 mm: tube Ø 4, tube Ø 6 - 5/32, tube Ø 6 - 1/8 supply 1: tube Ø 8 - 5/16 supply 12/14: tube Ø 4 - 5/32 exhaust 3 and 5: tube Ø 8 - 5/16 exhaust 82/84: tube Ø 4 - 5/32
Temperature	0 ÷ 50°C
Air characteristics	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo-pilot supply. The air quality of the servo-pilot supply must be of class [7:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	1 = 10.5 mm
Operating pressure	-0,9 ÷ 10 bar (-0,7 -10 bar for 2x3/2 and 2x2/2 versions)
Internal pilot pressure	3 ÷ 7 bar 2x3/2, 2x2/2
External pilot pressure	refer to complete catalogue
Flow rate	250 Nl/min
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION MULTIPOLE VERSION	
Type of Sub-D connector	25 or 44 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1,5 A (with Sub-D connector 44 pins)
Supply voltage	24 V DC +/- 10%
Max. number of coils to operate	22 on 11 valve positions (with Sub-D connector 25 pins) 38 on 19 valve positions (with Sub-D connector 44 pins)
Signalling LED	Multipole: green LED - presence of power red LED - anomaly Valve: yellow LED - presence of power blinking yellow LED - operating fault
ELCTRICAL SECTION FIELD BUS VERSION	
General data	see Multi-serial Modules section on the next pages
Max. absorption	2.5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Max. number of coils to operate	128 on 64 valve positions
Max. number of digital inputs	128
Max. number of analog inputs	16
Max. number of digital outputs	128
Max. number of analog outputs	16
IO-Link version	
Max n° of coils to operate	64 on 32 valve positions
Input and Output	No
Type of port	Class B
IODD Configuration file	up to 12, 24 or 32 valve positions per island
(The IO-Link module on the valve island is auto-configured to operate with the right IODD)	
More information can be found at http://shop.camozzi.com Series D > Download	

CODING EXAMPLE - MULTIPOLE VERSION

DM C 1 M W R A - 15R - 5BX5B - 4B3C3V - CS R

DM	MODULAR ISLAND
C	VALVE C = VC Model
1	SIZE 1 = 10,5 mm
M	ELECTRICAL CONNECTION M = Multipole 25 pin PNP Q = Multipole 44 pin PNP
W	INTERFACE O = without interface W = WLAN
R	MANUAL OVERRIDE P = push button R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external
15R	CONNECTOR 0 = without connector CONNECTOR R WITH CABLE 03R = 3 mt 05R = 5 mt 10R = 10 mt 15R = 15 mt 20R = 20 mt 25R = 25 mt
5BX5B	SUBBASES DIAPHRAGM Metric: Inches: A = cartridges tube Ø4 A = cartridges tube Ø5/32" B = cartridges tube Ø6 G = cartridges tube Ø1/4" SUBBASE# Q = diaphragm on channels 1, 3, 5 R = diaphragm on channel 1 S = diaphragm on channels 3 and 5 J = Subbase (D1) for servo-pilot control through solenoid valve (E;F)* WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY# QT = diaphragm on channels 1, 3, 5; 12/14 external RT = diaphragm on channel 1; 12/14 external ST = diaphragm on channels 3, 5; 12/14 external WITH DIAPHRAGM AND INTEGRATED SILENCER# QH = diaphragm on channels 1, 3, 5 RH = diaphragm on channel 1 SH = diaphragm on channels 3, 5 SUBBASE FOR ADDITIONAL FLOW# X = supply (1) and exhausts (3, 5) XH = supply (1) and exhausts (3, 5) with integrated silencer INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY* XT = additional supply (1) and exhausts (3, 5) FOR ELECTRICAL SUPPLY# K = separation of electrical supply - supply (1) and exhausts (3, 5) Z = separation of electrical supply - diaphragm on channel 1 # = These subbases are already provided with cartridges for tube Ø8; Ø5/16"
4B3C3V	VALVES M = 5/2 monostable E = 3/2 NC for internal servo-pilot control (Line 1)** B = 5/2 bistable F = 3/2 NC for external servo-pilot control** C = 2X3/2 NC D = 2x2/2 NC A = 2 X 3/2 NO H = 2x2/2 NO G = 1x3/2 NC + 1x3/2 NO R = 1x2/2 NC + 1x2/2 NO V = 5/3 CC K = 5/3 CO N = 5/3 CP L = free position W = position without valve
CS	TERMINAL PLATES Tube dimensions for port sizes 1,3,5 Metric: Inches: C = cartridge Ø 8 C = cartridges for tube Ø 5/16" CS = cartridge Ø 8 3,5 with silencers CS = cartridges for tube Ø5/16" 3,5 with silencers
R	FIXING TYPE = direct R = DIN rail

* = The subbase is equipped with a cartridge Ø4 (Ø5/32").

** = Solenoid valve for subbase model J.

The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases. QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

CODING EXAMPLE - FIELDBUS VERSION

DM C 1 01 W R A - 2A2Q - 2A2BQH4AX4B - 3M2L3M2B2C - CS R

DM	MODULAR ISLAND
C	VALVE C = VC Model
1	SIZE 1 = 10,5 mm
01	PROTOCOL 00 = Base without Fieldbus cover*** 01 = PROFIBUS 03 = CANopen 04 = Ethernet/IP 05 = Ethercat 06 = PROFINET 07 = IO-LINK (cannot be configured with input and output modules)
W	INTERFACE 0 = without interface W = WLAN
R	MANUAL OVERRIDE P = push button R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external
2A2Q	INPUT AND OUTPUT MODULES 0 = without A = 8 Digital inputs M8 B = 16 Digital inputs, terminal block connection C = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA) M12 D = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block E = 2 Inputs, BRIDGE M12 F = 2 Inputs, BRIDGE, TERMINAL BLOCK CONNECTION G = 2 Inputs, RTD M12 (PT100, PT200, PT500, PT1000) H = 2 Inputs, RTD TERMINAL BLOCK CONNECTION (PT100, PT200, PT500, PT1000) L = 2 Inputs, TC M12 (THERMOCOUPLES) M = 2 Inputs, TC TERMINAL BLOCK CONNECTION (THERMOCOUPLES) Q = 8 Digital outputs M8 R = 16 Digital outputs, terminal block connection T = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), M12 U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block (Push-in) P = 8 Digital inputs (4 M12 connectors) Y = 8 Digital outputs (4 M12 connectors) W**** = Closed base without I/O cover
2A2BQH4AX4B	SUBBASES Metric: Inches: A = Cartridges tube Ø4 A = Cartridges for tube Ø5/32" B = Cartridges tube Ø6 G = Cartridges for tube Ø1/4" SUBBASE DIAPHRAGM# Q = Diaphragm on channels 1, 3, 5 R = Diaphragm on channel 1 S = Diaphragm on channels 3 and 5 J = Subbase (D1) for servo-pilot control through solenoid valve (E;F)* WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY# QT = Diaphragm on channels 1, 3, 5; 12/14 External RT = Diaphragm on channel 1; 12/14 External ST = Diaphragm on channels 3, 5; 12/14 External WITH DIAPHRAGM AND INTEGRATED SILENCER# QH = Diaphragm on channels 1, 3, 5 RH = Diaphragm on channel 1 SH = Diaphragm on channels 3, 5 SUBBASE FOR ADDITIONAL FLOW# X = Supply (1) and exhausts (3, 5) XH = Supply (1) and exhausts (3, 5) with integrated silencer INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY# XT = Additional supply (1) and exhausts (3, 5) FOR ELECTRICAL SUPPLY# K = separation of electrical supply - supply (1) and exhausts (3, 5) Z = separation of electrical supply - diaphragm on channel 1 # = These subbases are already provided with cartridges for tube Ø8; Ø5/16"
3M2L3M2B2C	VALVES M = 5/2 Monostable V = 5/3 CC E = 3/2 NC for internal servo-pilot control (Line 1)** B = 5/2 Bistable K = 5/3 CO F = 3/2 NC for external servo-pilot control*** C = 2x3/2 NC N = 5/3 CP D = 2x2/2 NC A = 2x3/2 NO L = Free position H = 2x2/2 NO G = 1x3/2 NC + 1x3/2 NO W = Position without valve R = 1x2/2 NC + 1x2/2 NO
CS	TERMINAL PLATES Cartridges on tube ports 1, 3, 5 Metric: Inches: C = Cartridge tube Ø 8 C = Cartridge tube Ø 5/16" CS = Cartridge tube Ø 8 3,5 with silencer CS = Cartridge tube Ø 5/16" 3,5 with silencers
R	FIXING TYPE = direct R = DIN rail

* = The subbase is equipped with a cartridge Ø4 (Ø5/32").
 ** = Solenoid valve for subbase model J.
 *** = With the 00 protocol, the possible interface is 0, for example: DMC1000RA-...
 **** = The closed base without I/O cover always has to be put after the other modules, if present.
 For example: DMC101WRA-2A2QW... The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases.
 QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

Valve islands, Size 2, Multipole and Fieldbus Series D

Fieldbus connection with the most common communication protocols PROFIBUS-DP, PROFINET, CANopen, EtherNET/IP, EtherCAT and IO-Link
 Multipole connection with 25 or 44 pins
 Valve functions: 2x3/2; 5/2; 5/3 CC, CO, CP



Thanks to the large range of options available, the Series D2 valve island represent an excellent solution for all those applications that require pneumatic and electrical functions in restricted spaces.

The different electrical connection possibilities allow to create Islands with a high number of valve positions and different pressure zones. Moreover, the fieldbus version can manage both digital and analog electric input and output signals.

Small dimensions, high flows, subbases with individual pneumatic and electric modules, an easy subbase connection system, constant diagnosis and monitoring of performance parameters make this series a particularly innovative product.

One of the features of this series is the monitoring function regarding the correct operating of the solenoid valve. The electronics installed both in the subbase and in the Sub-D and multi-serial connection module, enables to constantly monitor the efficiency of the driving coil of the solenoid valve.

Possible variations with respect to the ideal operating conditions, for example a higher power consumption, variation in response times and an increased temperature are indicated through different ways of blinking by the LED on the solenoid valve and by an electric alert signal that is sent to the PLC through the Sub-D module connecting cable or, in case of the multi-serial connection module, directly through the communication protocol.

Manual, instruction sheet and configurator are available on the site <http://shop.camozzi.com> or by means of the QR code on the product's label.

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC, CO, CP 2x3/2 NC 2x3/2 NO 2x2/2 NC 2x2/2 NO + 1x2/2 NC 1x2/2 NO
Materials	spool: AL spool seals: HNBR other seals: NBR body: AL end caps: polymer subbase size 1: polymer
Connections	outlet 2 and 4, tube Ø6, Ø8, Ø10 supply 1: tube Ø10, Ø12, Ø14 supply 12/14: tube Ø4 exhaust 3 and 5: tube Ø10, Ø12, Ø14 exhaust 82/84: tube Ø4
Temperature	0 ÷ 50°C
Air characteristics	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo-pilot supply. The air quality of the servo-pilot supply must be of class [7:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	2 = 16 mm
Operating pressure	-0,9 ÷ 10 bar (-0,7 -10 bar for 2x3/2 and 2x2/2 versions)
Internal pilot pressure	3 ÷ 7 bar 4,5 ÷ 7 bar (with operating pressure exceeding 6 bar for the version 2x3/2)
External pilot pressure	refer to complete catalogue
Flow rate	950 NI/min
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION MULTIPOLE VERSION	
Type of Sub-D connector	25 or 44 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1,5 A (with Sub-D connector 44 pins)
Supply voltage	24 V DC +/- 10%
Max. number of coils to operate	22 on 11 valve positions (with Sub-D connector 25 pins) 38 on 19 valve positions (with Sub-D connector 44 pins)
Signalling LED	Multipole: green LED - presence of power red LED - anomaly Valve: yellow LED - presence of power blinking yellow LED - operating fault
ELCTRICAL SECTION FIELD BUS VERSION	
General data	see Multi-serial Modules section on the next pages
Max. absorption	2.5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Max. number of coils to operate	128 on 64 valve positions
Max. number of digital inputs	128
Max. number of analog inputs	16
Max. number of digital outputs	128
Max. number of analog outputs	16
IO-Link version	
Max n° of coils to operate	64 on 32 valve positions
Input and Output	No
Type of port	Class B
IODD Configuration file	up to 12, 24 or 32 valve positions per island
(The IO-Link module on the valve island is auto-configured to operate with the right IODD)	
More information can be found at http://shop.camozzi.com Series D > Download	

CODING EXAMPLE - FIELDBUS VERSION

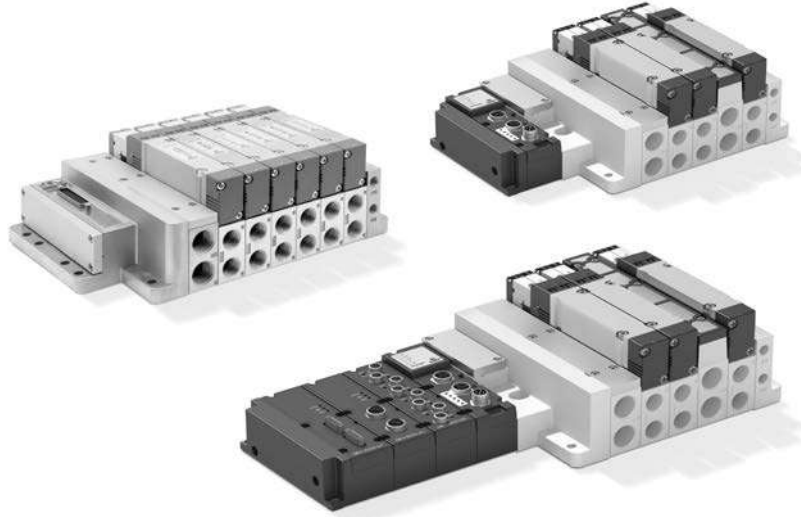
DM C 2 01 W R A - 2A2Q - 2B2CQH4DX4B - 3M2L3M2B2C - E R

DM	MODULAR ISLAND
C	VALVE C= VC Model
2	SIZE 2= 16 mm
01	PROTOCOL 00 = Base without Fieldbus coverage*** 01 = PROFIBUS 03 = CANopen 04 = Ethernet/IP 05 = Ethercat 06 = PROFINET 07 = IO-LINK (not configurable with input and output modules)
W	INTERFACE 0 = without interface W = WLAN
R	MANUAL OVERRIDE P = push button R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external
2A2Q	INPUT AND OUTPUT MODULES 0 = without A = 8 Digital inputs M8 B = 16 Digital inputs, terminal block connection C = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA) M12 D = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block E = 2 Inputs, BRIDGE M12 F = 2 Inputs, BRIDGE, TERMINAL BLOCK CONNECTION G = 2 Inputs, RTD M12 (PT100, PT200, PT500, PT1000) H = 2 Inputs, RTD TERMINAL BLOCK CONNECTION (PT100, PT200, PT500, PT1000) L = 2 Inputs, TC M12 (THERMOCOUPLES) M = 2 Inputs, TC TERMINAL BLOCK CONNECTION (THERMOCOUPLES) Q = 8 Digital outputs M8 R = 16 Digital outputs, terminal block connection T = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), M12 U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block (Push-in) P = 8 Digital inputs (4 M12 connectors) Y = 8 Digital outputs (4 M12 connectors) W**** = Closed base without I/O cover
2B2BQH4DX4B	SUBBASES Metric: B = Cartridges tube Ø6 C = Cartridges tube Ø8 D = Cartridges tube Ø10 Inches: L = Cartridges tube Ø1/4" C = Cartridges tube Ø5/16" P = Cartridges tube Ø3/8" SUBBASE DIAPHRAGM # Q = Diaphragm on channels 1, 3, 5 R = Diaphragm on channel 1 S = Diaphragm on channels 3 and 5 J = Subbase (D1) for servo-pilot control through solenoid valve (E;F)* WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY # QT = Diaphragm on channels 1, 3, 5; 12/14 External RT = Diaphragm on channel 1; 12/14 External ST = Diaphragm on channels 3, 5; 12/14 External WITH DIAPHRAGM AND INTEGRATED SILENCER # QH = Diaphragm on channels 1, 3, 5 RH = Diaphragm on channel 1 SH = Diaphragm on channels 3, 5 SUBBASE FOR ADDITIONAL FLOW # X = Supply (1) and exhausts (3, 5) XH = Supply (1) and exhausts (3, 5) with integrated silencer INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY# XT = Additional supply (1) and exhausts (3, 5) FOR POWER SUPPLY # K = separation of power supply - supply (1) and exhausts (3, 5) Z = separation of power supply - diaphragm on channel 1 # = These subbases are already provided with cartridges for tube Ø8; Ø5/16"
3M2L3M2B2C	VALVES M = 5/2 Monostable B = 5/2 Bistable C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO V = 5/3 CC K = 5/3 CO N = 5/3 CP L = Free position W = Position without valve E = 3/2 NC for internal servo-pilot control (Line 1)** F = 3/2 NC for external servo-pilot control** D = 2x2/2 NC H = 2x2/2 NO R = 1x2/2 NC + 1x2/2 NO
E	TERMINAL PLATES Fittings on tube ports 1, 3, 5 Metric: D = Cartridge tube Ø10 E = Cartridge tube Ø12 F = Cartridge tube Ø14 DS = Cartridge tube Ø10 with external silencer (2939-10) ES = Boccole tubo Ø12 e silenziatore esterno (2939-12) Inches: P = Boccola tubo Ø3/8" R = Boccola tubo Ø1/2"
R	FIXING TYPE = direct R = DIN rail

* = The subbase is equipped with a cartridge Ø4 (Ø5/32").
 ** = Solenoid valve for subbase model J.
 *** = With the 00 protocol, the possible interface is 0, for example: DMC1000RA-...
 **** = The closed base without I/O cover always has to be put after the other modules, if present.
 For example: DMC101WRA-2A2QW... The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases.
 QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

Valve islands, Size 4, Multipole and Fieldbus Series D

Fieldbus connection with the most common communication protocols PROFIBUS-DP, PROFINET, CANopen, EtherNET/IP, EtherCAT and IO-Link
 Multipole connection with 25 or 44 pins
 Valve functions: 2x3/2; 5/2; 5/3 CC, CO, CP



Thanks to the large range of options available, the Series D valve island represent an excellent solution for all those applications that require pneumatic and electrical functions in restricted spaces.

The different electrical connection possibilities allow to create Islands with a high number of valve positions and different pressure zones. Moreover, the fieldbus version can manage both digital and analog electric input and output signals.

Small dimensions, high flows, subbases with individual pneumatic and electric modules, an easy subbase connection system, constant diagnosis and monitoring of performance parameters make this series a particularly innovative product.

One of the features of this series is the monitoring function regarding the correct operating of the solenoid valve. The electronics installed both in the subbase and in the Sub-D and multi-serial connection module, enables to constantly monitor the efficiency of the driving coil of the solenoid valve. Possible variations with respect to the ideal operating conditions, for example a higher power consumption, variation in response times and an increased temperature are indicated through different ways of blinking by the LED on the solenoid valve and by an electric alert signal that is sent to the PLC through the Sub-D module connecting cable or, in case of the multi-serial connection module, directly through the communication protocol.

Manual, instruction sheet and configurator are available on the site <http://shop.camozzi.com> or by means of the QR code on the product's label.

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC, CO, CP 2x3/2 NC 2x3/2 NO 1x3/2 NC + 1x3/2 NO
Materials	spool: AL spool seals: HNBR other seals: NBR body: AL end caps: polymer individual subbase: AL
Connections	inlet 2 and 4, threaded G 3/8 supply 1: G 1/2 supply 12/14: G 1/8 exhaust 3 and 5: G 1/2 or integrated silencer exhaust 82/84: G 1/8
Temperature	0 ÷ 50°C
Air characteristics	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo-pilot supply. The air quality of the servo-pilot supply must be of class [7:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	4 = 25 mm
Operating pressure	-0,9 ÷ 10 bar
Internal pilot pressure	2,5 ÷ 7 bar 4,5 ÷ 7 bar (with operating pressure exceeding 6 bar for the version 2x3/2)
External pilot pressure	refer to complete catalogue
Flow rate	2000 Nl/min
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION MULTIPOLE VERSION	
Type of Sub-D connector	25 or 44 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1 A (with Sub-D connector 44 pins)
Supply voltage	24 V DC +/- 10%
Max. number of coils to operate	22 on 11 valve positions (with Sub-D connector 25 pins) 38 on 19 valve positions (with Sub-D connector 44 pins)
Signalling LED	Multipole: green LED - presence of power red LED - anomaly Valve: yellow LED - presence of power blinking yellow LED - operating fault
ELECTRICAL SECTION FIELD BUS VERSION	
General data	see Multi-serial Modules section on the next pages
Max. absorption	2.5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Max. number of coils to operate	128 on 64 valve positions
Max. number of digital inputs	128
Max. number of analog inputs	16
Max. number of digital outputs	128
Max. number of analog outputs	16
IO-Link version	
Max n° of coils to operate	64 on 32 valve positions
Input and Output	No
Type of port	Class B
IODD Configuration file	up to 12, 24 or 32 valve positions per island
(The IO-Link module on the valve island is auto-configured to operate with the right IODD)	
More information can be found at http://shop.camozzi.com Series D > Download	

CODING EXAMPLE - MULTIPOLE VERSION

DM C 4 M W R A - 03R - XHCDQ2DXHE - 2MB2C - E R

DM	MODULAR ISLAND
C	VALVE C = VC Model
4	SIZE 4 = 25 mm
M	ELECTRICAL CONNECTION M = Multipole 25 pin PNP Q = Multipole 44 pin PNP
W	INTERFACE O = without interface W = WLAN
R	MANUAL OVERRIDE P = push button R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external C = external with fitting (S6510 6-1/8) and threaded silencer (2931 1/8) D = internal with integrated silencer
03R	CONNECTOR O = without connector CONNECTOR R WITH CABLE 03R = 3 mt 05R = 5 mt 10R = 10 mt 15R = 15 mt 20R = 20 mt 25R = 25 mt
XHCDQ2DXHE	SUBBASES K = threaded subbase C = with fittings for tube Ø8 (S6510 8-3/8) D = with fittings for tube Ø10 (S6510 10-3/8) E = with fittings for tube Ø12 (S6510 12-3/8) F = with fittings for tube Ø14 (S6510 14-3/8) SEALS Q = seal on channels 1, 3, 5 R = seal on channel 1 V = seal on channels 3 and 5 INITIAL SUBBASE/INTERMEDIATE:* X = supply (1) and exhausts (3, 5) XS = supply (1) and exhausts (3, 5) with threaded silencer (2931 1/2) XH = supply (1) and exhausts (3, 5) with silencer * These subbases use the connection described in the Terminal Plates menu
2MB2C	VALVES M = 5/2 monostable B = 5/2 bistable C = 2x3/2 NC A = 2x3/2 NO G = 2x3/2 (NC+NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L = free position W = position without valve
E	TERMINAL PLATES CONNECTIONS K = threaded G 3/8 D = with fittings for tube Ø10 (S6510 10-1/2) E = with fittings for tube Ø12 (S6510 12-1/2) F = with fittings for tube Ø14 (S6510 14-1/2) G = with fittings for tube Ø16 (S6510 16-1/2)
R	FIXING TYPE = direct R = DIN rail

The choice of the fitting made in the Terminal Plates section is also valid for the initial subbase/intermediate

CODING EXAMPLE - FIELDBUS VERSION

DM	C	4	01	W	R	A	-	2A2Q	-	XHCDQ2DXHE	-	2MB2C	-	E	R
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DM	MODULAR ISLAND
C	VALVE C = VC Model
4	SIZE 4 = 25 mm
01	PROTOCOL 00 = Base without Fieldbus cover* 01 = PROFIBUS 03 = CANopen 04 = Ethernet/IP 05 = Ethercat 06 = PROFINET 07 = IO-LINK (cannot be configured with input and output modules)
W	INTERFACE 0 = without interface W = WLAN
R	MANUAL OVERRIDE P = push button R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external C = external with fitting (6512 6-1/8) and threaded silencer (2931) D = internal with silencer
2A2Q	INPUT AND OUTPUT MODULES 0 = without A = 8 Digital inputs M8 B = 16 Digital inputs, terminal block connection (Push-in) C = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA) M12 D = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block connection (Push-in) E = 2 Inputs, BRIDGE M12 F = 2 Inputs, BRIDGE, terminal block connection (Push-in) G = 2 Inputs, RTD M12 (PT100, PT200, PT500, PT1000) H = 2 Inputs, RTD terminal block connection (Push-in) (PT100, PT200, PT500, PT1000) L = 2 Inputs, TC M12 (THERMOCOUPLES) M = 2 Inputs, TC terminal block connection (Push-in) (THERMOCOUPLES) Q = 8 Digital outputs M8 R = 16 Digital outputs, terminal block connection (Push-in) T = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), M12 U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block (Push-in) P = 8 Digital inputs (4 M12 connectors) Y = 8 Digital outputs (4 M12 connectors) W** = Closed base without I/O cover
XHCDQ2SXHE	SUBBASES K = threaded subbase C = with fittings for tube Ø8 (S6510 8-3/8) D = with fittings for tube Ø10 (S6510 10-3/8) E = with fittings for tube Ø12 (S6510 12-3/8) F = with fittings for tube Ø14 (S6510 14-3/8) SEALS Q = seal on channels 1, 3, 5 R = seal on channel 1 V = seal on channels 3 and 5 INITIAL SUBBASE/INTERMEDIATE:* X = supply (1) and exhausts (3, 5) XS = supply (1) and exhausts (3, 5) with threaded silencer (2931) XH = supply (1) and exhausts (3, 5) with silencer * These subbases use the connection described in the Terminal Plates menu
2MB2C	VALVES M = 5/2 Monostable B = 5/2 Bistable C = 2x3/2 NC A = 2x3/2 NO G = 2x3/2 (NC+NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L = Free position W = position without valve
E	TERMINAL PLATES CONNECTIONS K = threaded G 3/8 D = with fittings for tube Ø10 (S6510 10-1/2) E = with fittings for tube Ø12 (S6510 12-1/2) F = with fittings for tube Ø14 (S6510 14-1/2) G = with fittings for tube Ø16 (S6510 16-1/2)
R	FIXING TYPE = direct R = DIN rail

The choice of the fitting made in the Terminal Plates section is also valid for the initial subbase/intermediate

*With the 00 protocol, the possible interface is 0, for example: DMC4000RA-...

**The closed base without I/O cover must always be placed after the other modules if present e.g.: DMC401WRA-2A2QW...

Valve islands, Size 5, Multipole and Fieldbus Series D

Fieldbus connection with the most common communication protocols PROFIBUS-DP, PROFINET, CANopen, EtherNET/IP, EtherCAT and IO-Link
 Multipole connection with 25 or 44 pins
 Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC, CO, CP



In this configuration, Series D1 and D2 valves (size 10,5 and 16 mm) can be combined into one unique Island. Some benefits of this version are the small dimensions, only one Multipole or Serial connection point, easy installation and the possibility to have different flow rates.

All size D2 components of this configuration remain unvaried, while for size D1 a longer subbase is used. All electric and pneumatic components and characteristics of the single versions remain unvaried.

Manuals, instruction sheets and configuration files are available on <http://shop.camozzi.com> or through the QR code you can find on the product label.

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC, CO, CP 2x3/2 NC 2x3/2 NO 1x3/2 NC +1x3/2 NO
Materials	spool: AL spool seals: HNBR other seals: NBR body: AL end caps: polymer subbase size 1: polymer
Connections	size 10,5: tube Ø 4, tube Ø 6 size 16: tube Ø 6, tube Ø 8, tube Ø 10 supply 1: tube Ø 10, tube Ø 12, tube Ø 14 supply 12/14: tube Ø 4 exhaust 3 and 5: tube Ø 10, tube Ø 12, tube Ø 14 exhaust 82/84: tube Ø 4
Temperature	0 ÷ 50°C
Air characteristics	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo-pilot supply. The air quality of the servo-pilot supply must be of class [7:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	5 = 10,5 and 16 mm
Operating pressure	-0,9 ÷ 10 bar
Internal pilot pressure	3 ÷ 7 bar 4,5 ÷ 7 bar (with operating pressure exceeding 6 bar for the version 2x3/2)
External pilot pressure	refer to complete catalogue
Flow rate	10,5 mm = 250 NI/min 16 mm = 950 NI/min
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION MULTIPOLE VERSION	
Type of Sub-D connector	25 or 44 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1 A (with Sub-D connector 44 pins)
Supply voltage	24 V DC +/- 10%
Max. number of coils to operate	22 on 11 valve positions (with Sub-D connector 25 pins) 38 on 19 valve positions (with Sub-D connector 44 pins)
Signalling LED	Multipole: green LED - presence of power red LED - anomaly Valve: yellow LED - presence of power blinking yellow LED - operating fault
ELECTRICAL SECTION FIELDBUS VERSION	
General data	see Multi-serial Modules section on the next pages
Max. absorption	2.5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Max. number of coils to operate	128 on 64 valve positions
Max. number of digital inputs	128
Max. number of analog inputs	16
Max. number of digital outputs	128
Max. number of analog outputs	16
IO-Link version	
Max n° of coils to operate	64 on 32 valve positions
Input and Output	No
Type of port	Class B
IODD Configuration file	up to 12, 24 or 32 valve positions per island
(The IO-Link module on the valve island is auto-configured to operate with the right IODD)	
More information can be found at http://shop.camozzi.com Series D > Download	

CODING EXAMPLE - MULTIPOLE VERSION

DM C 5 M W R A - 15R - 2CD2NSHDN - 2MBLC2B - F R

DM	MODULAR ISLAND	
C	VALVE C = VC Model	
5	SIZE 5 = 10,5 mm (D1) + 16 mm (D2)	
M	ELECTRICAL CONNECTION M = Multipole 25 pin PNP Q = Multipole 44 pin PNP	
W	INTERFACE O = without interface W = WLAN	
R	MANUAL OVERRIDE P = push button R = with push and turn device	
A	SERVO-PILOT SUPPLY A = internal B = external	
15R	CONNECTOR 0 = without connector CONNECTOR R WITH CABLE 03R = 3 mt 05R = 5 mt 10R = 10 mt 15R = 15 mt 20R = 20 mt 25R = 25 mt	
2CD2NSHDN	<p>SUBBASES DIAPHRAGM #</p> <p>Metric: N = cartridges tube Ø4 (D1) M = cartridges tube Ø6 (D1) B = cartridges tube Ø6 (D2) C = cartridges tube Ø8 (D2) D = cartridges tube Ø10 (D2)</p> <p>Inches: N = Cartridges tube Ø 5/32" (D1) G = Cartridges tube Ø 1/4" (D1) L = Cartridges tube Ø 1/4" (D2) P = Cartridges tube Ø 3/8" (D2) C = Cartridges tube Ø 5/16" (D2)</p> <p>SUBBASE # Q = diaphragm on channels 1, 3, 5 R = diaphragm on channel 1 S = diaphragm on channels 3 and 5 J = Subbase (D1) for servo-pilot control through solenoid valve (E;F)* WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY # QT = diaphragm on channels 1, 3, 5; 12/14 external RT = diaphragm on channel 1; 12/14 external ST = diaphragm on channels 3, 5; 12/14 external WITH DIAPHRAGM AND INTEGRATED SILENCER # QH = diaphragm on channels 1, 3, 5 RH = diaphragm on channel 1 SH = diaphragm on channels 3, 5 SUBBASE FOR ADDITIONAL FLOW # X = supply (1) and exhausts (3, 5) XH = supply (1) and exhausts (3, 5) with integrated silencer INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY # XT = additional supply (1) and exhausts (3, 5) FOR POWER SUPPLY # K = separation of power supply - supply (1) and exhausts (3, 5) Z = separation of power supply - diaphragm on channel 1 # = These subbases are already provided with cartridges for tube Ø8; Ø5/16"</p>	
2MBLC2B	<p>VALVES</p> <p>M = 5/2 monostable B = 5/2 bistable C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO V = 5/3 CC K = 5/3 CO N = 5/3 CP L = free position W = Position without valve</p> <p>E = 3/2 NC for internal servo-pilot control (Line 1)** F = 3/2 NC for external servo-pilot control** D = 2x2/2 NC H = 2x2/2 NO R = 1x2/2 NC + 1x2/2 NO</p>	
F	<p>TERMINAL PLATES</p> <p>Tube dimensions for port sizes 1,3,5</p> <p>Metric: C = cartridge Ø 8 D = cartridge Ø 10 E = cartridge Ø 12 F = cartridge Ø 14</p> <p>CS = cartridge Ø 8 and external silencer (2939-8) DS = cartridge Ø 10 and external silencer (2939-10) ES = cartridge Ø 12 and external silencer (2939-12)</p> <p>Inches: C = Cartridge Ø 8, 5/16" CS = Cartridge Ø 8 (5/16"); and external silencer (2939-8) P = Cartridge Ø 3/8" R = Cartridge Ø 1/2"</p>	
R	FIXING TYPE = direct R = DIN rail	

* = The subbase is equipped with a cartridge Ø4 (Ø5/32").

** = Solenoid valve for subbase model J.

The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases.

QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

CODING EXAMPLE - FIELDBUS VERSION

DM	C	5	01	W	R	A	-	2A2Q	-	2CD2NSHDN	-	2MBLC2B	-	F	R
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DM	MODULAR ISLAND	
C	VALVE C = VC Model	
5	SIZE 5 = 10,5 mm (D1) + 16 mm (D2)	
01	PROTOCOL 00 = Base without Fieldbus*** 01 = PROFIBUS 03 = CANopen 04 = Ethernet/IP 05 = Ethercat 06 = PROFINET 07 = IO-LINK (cannot be configured with input and output modules)	
W	INTERFACE 0 = without interface W = WLAN	
R	MANUAL OVERRIDE P = push button R = with push and turn device	
A	SERVO-PILOT SUPPLY A = internal B = external	
2A2Q	INPUT AND OUTPUT MODULES 0 = without A = 8 Digital inputs M8 B = 16 Digital inputs, terminal block connection C = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA) M12 D = 2 Analog inputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block E = 2 Inputs, BRIDGE M12 F = 2 Inputs, BRIDGE, TERMINAL BLOCK CONNECTION G = 2 Inputs, RTD M12 (PT100, PT200, PT500, PT1000) H = 2 Inputs, RTD TERMINAL BLOCK CONNECTION (PT100, PT200, PT500, PT1000) L = 2 Inputs, TC M12 (THERMOCOUPLES) M = 2 Inputs, TC TERMINAL BLOCK CONNECTION (THERMOCOUPLES) Q = 8 Digital outputs M8 R = 16 Digital outputs, terminal block connection T = 2 Analog outputs (config. 0-10V,±10V,0-20mA, 4-20mA,±20mA), M12 U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block P = 8 Digital inputs (4 M12 connectors) Y = 8 Digital outputs (4 M12 connectors) W**** = Closed base without I/O cover	
2CD2NSHDN	SUBBASES Metric: N = Cartridges tube Ø4 (D1) M = Cartridges tube Ø6 (D1) B = Cartridges tube Ø6 (D2) C = Cartridges tube Ø8 (D2) D = Cartridges tube Ø10 (D2) Inches: N = Cartridges tube Ø 5/32" (D1) G = Cartridges tube Ø 1/4" (D1) L = Cartridges tube Ø 1/4" (D2) P = Cartridges tube Ø 3/8" (D2) C = Cartridges tube Ø 5/16" (D2) SUBBASE DIAPHRAGM # Q = Diaphragm on channels 1, 3, 5 R = Diaphragm on channel 1 S = Diaphragm on channels 3 and 5 J = Subbase (D1) for servo-pilot control through solenoid valve (E;F)* WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY # QT = Diaphragm on channels 1, 3, 5; 12/14 External RT = Diaphragm on channel 1; 12/14 External ST = Diaphragm on channels 3, 5; 12/14 External WITH DIAPHRAGM AND INTEGRATED SILENCER # QH = Diaphragm on channels 1, 3, 5 RH = Diaphragm on channel 1 SH = Diaphragm on channels 3, 5 SUBBASE FOR ADDITIONAL FLOW # X = Supply (1) and exhausts (3, 5) XH = Supply (1) and exhausts (3, 5) with integrated silencer INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY # XT = Additional supply (1) and exhausts (3, 5) FOR POWER SUPPLY # K = separation of power supply - supply (1) and exhausts (3, 5) Z = separation of power supply - diaphragm on channel 1 # = These subbases are already provided with cartridges for tube Ø8; Ø5/16"	
2MBLC2B	VALVES M = 5/2 Monostable B = 5/2 Bistable C = 2x3/2 NC A = 2x3/2 NO G = 2x3/2 (NC+NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L = Free position W = Position without valve E = 3/2 NC for internal servo-pilot control (Line 1)** F = 3/2 NC for external servo-pilot control** D = 2x2/2 NC H = 2x2/2 NO R = 1x2/2 NC + 1x2/2 NO	
F	TERMINAL PLATES Fittings on tube ports 1, 3, 5 Metric: C = Cartridge tube Ø 8 D = Cartridge tube Ø 10 E = Cartridge tube Ø 12 F = Cartridge tube Ø 14 CS = Cartridge tube Ø 8 and external silencer (2939-8) DS = Cartridge tube Ø 10 and external silencer (2939-10) ES = Cartridge tube Ø12 and external silencer (2939-10) Inches: C = Cartridge tube Ø8, 5/16" CS = Cartridge tube Ø8 (5/16"); 3,5 with silencer 2939-8 P = Cartridge tube Ø 3/8" R = Cartridge tube Ø1/2"	
R	FIXING TYPE = direct R = DIN rail	

* = The subbase is equipped with a cartridge Ø4 (Ø5/32").

** = Solenoid valve for subbase model J.

*** = With the 00 protocol, the possible interface is 0, for example: DMCL000RA-...

**** = The closed base without I/O cover always has to be put after the other modules, if present.

For example: DMCL01WRA-2A2QW... The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases.

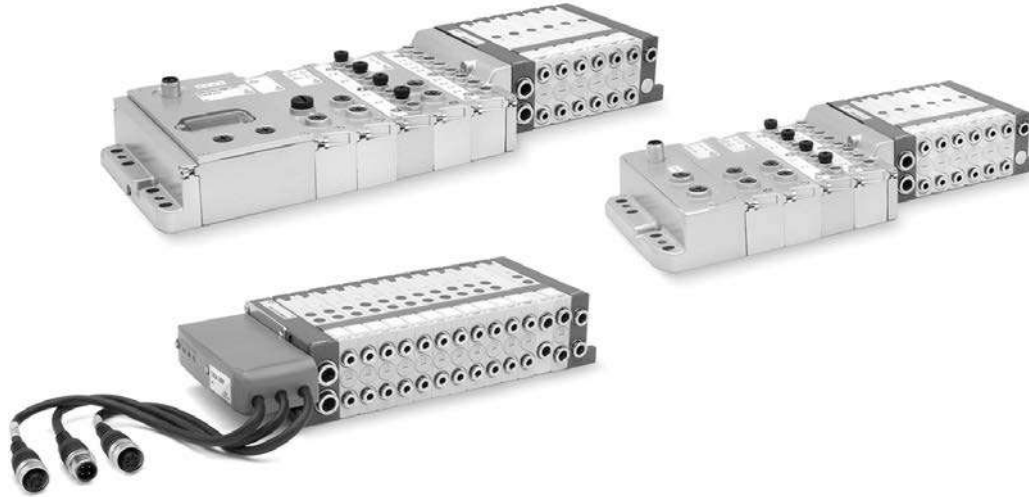
QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

Valve islands, Multipole and Fieldbus Series F

Multipole integrated electrical connection (PNP)

Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC

It can interface with all major serial communication protocols.



The Multipole version of Series F valve island can be easily integrated with the accessories of the new Series CX multi-serial module, thus connecting to the different serial nets provided.

It is also possible to manage a standard multipole island by means of a Sub-D adapter or through an integrated node in the island. The typical Series F single modularity allows the installation of up to 24 solenoids on 24 valve positions, even in the Fieldbus version.

The use of technopolymer in this Series has allowed to realize a valve island which is characterized by small dimensions, high flow and reduced weight. The reduced dimensions, its flexibility during the assembly as well as the wide range of valve functions make Series F a highly innovative product which is suitable for several application requirements.

Manuals, instruction sheets and configuration files can be found on <http://shop.camozzi.com> or on the QR code on the label of the product.

The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series F valve islands catalogue, which is available online on the Camozzi Catalogue website (see section FIELD BUS AND MULTIPOLE SYSTEMS > Valve islands > Series F valve islands, Multipole and Fieldbus).

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC 2x2/2 NO 2x2/2 NC 1x2/2 NC + 1x2/2 NO 2x3/2 NO 2x3/2 NC 1x3/2 NC + 1x3/2 NO
Materials	aluminium spool HNBR seals other seals in NBR brass cartridges technopolymer body and end covers
Connections	Inlets 2 and 4, size 1 (12 mm) = tube $\varnothing 4$; $\varnothing 6$ Inlets 2 and 4, size 2 (14 mm) = tube $\varnothing 4$; $\varnothing 6$; $\varnothing 8$ Supply 1, size 1 and 2 = tube $\varnothing 8$; $\varnothing 10$ Servo pilot 12/14, size 1 and 2 = tube $\varnothing 6$ Exhausts 3/5, size 1 and 2 = tube $\varnothing 8$; $\varnothing 10$ Exhausts 82/84, size 1 and 2 = tube $\varnothing 6$
Temperature	0 ÷ 50°C
Air specifications	Filtered compressed air, non lubricated, class [6:4:4] according to ISO 8573-1:2010 standard. If lubrication is necessary, please use only oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be [6:4:4] according to ISO 8573-1:2010 standard.
Valve sizes	12 mm 14 mm
Working pressure	- 0,9 ÷ 10 bar
Pilot pressure	3 ÷ 7 bar 4,5 ÷ 7 bar (with working pressure exceeding 6 bar for the versions 2x2/2 and 2x3/2)
Flow rate	250 NI/min (12 mm) 500 NI/min (14 mm)
Mounting position	any position
Duty cycle	ED 100%
Protection class (according to EN 60529)	IP40

ELECTRICAL SECTION - MULTIPOLE VERSION

Supply voltage	24 V DC +/- 10%
Max number of solenoids	24
Max number of valve functions	24 (monostable)
Type of Sub-D connection	Sub-D 25 pin
Max absorption	0.8 A

ELECTRICAL SECTION - FIELD BUS VERSION

General characteristics	see the section about the Series CX multi-serial module (2.3.50)
Max absorption	digital outputs / analogic outputs and inputs 3 A digital/analogic inputs 3 A
Supply voltage	logic supply 24 V DC +/- 10% power supply 24 V DC +/- 10%
Max number of operable coils	24 on 24 valve functions (monostable)

CODING EXAMPLE - MULTIPOLE VERSION

F	P	2	R	M	T	A	-	MB2CMUL2B	-	ZQR3SLQR
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F	SERIES
P	TYPE P = pneumatic A = accessories
2	SIZE 1 = 12 mm 2 = 14 mm
R	MANUAL OVERRIDE P = pressure actuation control R = actuation control with push & turn device
M	ELECTRICAL CONNECTION M = multipole
T	CARTRIDGES FOR LEFT TERMINAL S = tube Ø 8 T = tube Ø 10 Note: the cartridges for the right terminal are for tube Ø 6.
A	SERVO-PILOT SUPPLY A = internal B = external
MB2CMUL2B	SOLENOID VALVES AND ADDITIONAL PLATES * M = 5/2 monostable D = 5/2 monostable with bistable electric board B = 5/2 bistable C = 2x3/2 NC A = 2x3/2 NO G = 3/2 NC + 3/2 NO E = 2x2/2 NC F = 2x2/2 NO I = 2/2 NC + 2/2 NO V = 5/3 CC L = free position with passing electric board W = free position with bistable electric board Z = free position with monostable electric board X = supplementary supply and exhaust T = separated supply and exhaust U = separated supply, supplementary exhaust K = supplementary supply, separated exhaust
ZQR3SLQR	CARTRIDGES FOR SOLENOID VALVES AND ADDITIONAL PLATES * Q = tube Ø 4 R = tube Ø 6 S = tube Ø 8 (not for Size 1) L = free position (no cartridges) W = free position with bistable electric board (no cartridges) Z = free position with monostable electric board (no cartridges)
<p>* in case of identical and consecutive codes, in the choices "SOLENOID VALVES AND ADDITIONAL PLATES" and "CARTRIDGES FOR SOLENOID VALVES AND ADDITIONAL PLATES", replace the letters with the number. With the choice "CARTRIDGES FOR SOLENOID VALVES AND ADDITIONAL PLATES" both of the following connections are defined: 2 and 4; 1 and 3/5.</p> <p>Examples: FP2RMTA-MBCCMULMMBB-QQRSSLRQR FP2RMTA-MB2CMUL3M2B-ZQR2SL3RQ2R</p>	

CODING EXAMPLE - FIELDBUS VERSION

F	P	2	R	00	T	A	-	0	-	MB2CMUL2B	-	ZQR3SLQR
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F	SERIES
P	TYPE P = pneumatic A = accessories
2	SIZE 1 = 12 mm 2 = 14 mm
R	MANUAL OVERRIDE P = pressure actuation control R = actuation control with push & turn device
00	PROTOCOL 00 = Interface with CX3 01 = PROFIBUS-DP 02 = DeviceNet 03 = CANopen 04 = EtherNet/IP 05 = EtherCAT 06 = PROFINET 99 = Expansion Module
T	CARTRIDGES FOR PNEUMATIC/ELECTRICAL TERMINAL S = tube Ø 8 T = tube Ø 10 Note: the cartridges for the right terminal are for tube Ø 6.
A	SERVO-PILOT SUPPLY A = internal B = external
0	INPUT / OUTPUT MODULES 0 = no module A = 8 digital inputs M8 B = 4 digital inputs M8 C = 2 analog inputs 4-20 mA D = 2 analog inputs 0-10 V E = 1 analog input 4-20 mA + 1 input 0-10 V Q = 4 M12 duo digital outputs R = 2 analog outputs 4-20 mA T = 2 analog outputs 0-10 V U = 1 analog output 4-20 mA + 1 output 0-10 V V = 1 analog output 4-20 mA + 1 input 0-10 V Z = 1 analog output 4-20 mA + 1 input 4-20 mA K = 1 analog output 0-10 V + 1 input 0-10 V Y = 1 analog output 0-10 V + 1 input 4-20 mA S = Initial subnet module
MB2CMUL2B	SOLENOID VALVES AND ADDITIONAL PLATES M = 5/2 monostable D = 5/2 monostable with bistable electric board B = 5/2 bistable C = 2x5/2 NC A = 2x3/2 NO G = 3/2 NC + 3/2 NO E = 2x2/2 NC F = 2x2/2 NO I = 2/2 NC + 2/2 NO V = 5/3 CC L = free position with passing electric board W = free position with bistable electric board Z = free position with monostable electric board X = supplementary supply and exhaust T = separated supply and exhaust U = separated supply, supplementary exhaust K = supplementary supply, separated exhaust
ZQR3SLQR	CARTRIDGES FOR SOLENOID VALVES AND ADDITIONAL PLATES Q = tube Ø 4 R = tube Ø 6 S = tube Ø 8 (not for Size 1) L = free position (no cartridges) W = free position with bistable electric board (no cartridges) Z = free position with monostable electric board (no cartridges)

Valve islands, Multipole and Fieldbus Serie HN

Multipole connection with 25 or 37 pins
 Serial connection with the most common communication protocols
 Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC



Thanks to the large range of options available, the Series HN valve islands represent an excellent solution for different applications, particularly in automation systems.

Small dimensions, high flow, pneumatic and electric modularity, electric connections on boards, possibility to interface with the multi-serial node Series CX, optimization of the signal distribution thanks to subbases for monostable and bistable solenoid valves are only some of the features that make this series a particularly innovative product.

Manuals, instruction sheets and configuration files can be found on <http://shop.camozzi.com> or on the QR code on the label of the product.

The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series HN valve islands catalogue, which is available online on the Camozzi Catalogue website (see section FIELDBUS AND MULTIPOLE SYSTEMS > Valve islands > Series HN valve islands, Multipole and Fieldbus).

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC 2x2/2 NO 2x2/2 NC 1x2/2 NC+ 1xNO 2x3/2 NC 2x3/2 NO 1x3/2 NC+ 1x3/2 NO
Materials	spool in aluminium spool seals in HNBR other seals in NBR cartridges in brass body and end covers in technopolymer subbases in aluminium
Connections	Inlets 2 and 4, size 10,5 mm: M7, tube Ø 4, tube Ø 6, tube Ø 8 Inlets 2 and 4, size 21 mm: G1/4, tube Ø 10 Supply 1: G1/4, tube Ø 8, tube Ø 10 Supply 12/14: M7 Exhausts 3 and 5: G1/4 or with integrated silencer Exhausts 82/84: M7
Temperature	0 ÷ 50°C
Air specifications	Filtered compressed air, non lubricated, class [6:4:4] according to ISO 8573-1:2010. If lubrication is necessary, please only use oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be [6:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	10.5mm (2 valves for each subbase) 21mm (1 valve for each subbase)
Working pressure	- 0,9 ÷ 10 bar
Pilot pressure	3 ÷ 7 bar 4.5 ÷ 7 bar (with working pressure exceeding 6 bar for the versions 2x2/2 and 2x3/2)
Flow rate	400 NL/min (10.5mm) 850 NL/min (21mm)
Mounting position	any position
Protection class	IP 65

ELECTRICAL SECTION - MULTIPOLE VERSION	
Type of Sub-D connector	25 or 37 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1 A (with Sub-D connector 37 pins)
Supply voltage	24 V DC +/- 10%
Max. number of coils to operate	24 on 20 valve positions (with Sub-D connector 25 pins) 32 on 28 valve positions (with Sub-D connector 37 pins)
Valve signalling	yellow led

ELECTRICAL SECTION - FIELDBUS VERSION	
General data	see the CX section
Max. absorption	digital outputs / analog outputs and inputs 3A digital/analog inputs 3A
Supply voltage	logic supply 24 V DC +/- 10% power supply 24 V DC +/- 10%
Max. number of coils to operate	32 on 28 valve positions

MULTIPOLE VERSION CODING EXAMPLE

HN	5	M	-	03A	-	2Q4AZ2A	-	2B8M4C	-	A
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HN	SERIES									
5	SIZE 1 = 10.5 2 = 21 5 = Mixed									
M	ELECTRICAL CONNECTION M = Multipole 25 pin PNP N = Multipole 25 pin NPN H = Multipole 37 pin PNP L = Multipole 37 pin NPN									
03A	CONNECTION: 000 = without connector/cable			CONNECTOR WITH CABLE AXIAL OUTPUT: 03A = 3m 05A = 5m 10A = 10m 15A = 15m 20A = 20m 25A = 25m				CONNECTOR WITHOUT CABLE: 4XA = 25 pins axial 4XR = 25 pins radial 9XA = 37 pins axial 9XR = 37 pins radial		
2Q4AZ2A	SUBBASES FOR 2 SOLENOID VALVES SIZE 1 (*): A (AZ) = M7 threads B (BZ) = 4 fittings for tube Ø4 C (CZ) = 4 fittings for tube Ø6 D (DZ) = channel 1, 3, 5 closed; M7 threads E (EZ) = channel 1, 3, 5 closed; fittings tube Ø4 F (FZ) = channel 1, 3, 5 closed; fittings tube Ø6 G (GZ) = channel 3, 5 closed; M7 threads H (HZ) = channel 3, 5 closed; fittings tube Ø4 I (IZ) = channel 3, 5 closed; fittings tube Ø6 L (LZ) = channel 1 closed; M7 threads M (MZ) = channel 1 closed; fittings tube Ø4 N (NZ) = channel 1 closed; fittings tube Ø6 (*): Subbases with "Z" at the end of their code are used with monostable solenoid valves FOR SOLENOID VALVES SIZE 2: P = G1/4 threads Q = G1/8 threads R = fittings for tube Ø6 S = fittings for tube Ø8 J = fittings for tube Ø10			SUBBASES FOR PNEUMATIC SUPPLY: X = supplementary supply and exhaust Y = supplementary supply and exhaust with integrated silencer W = supply from the exhausts FOR ELECTRICAL SUPPLY: K = separation of electrical supply KZ = M12 connector				SEALS: T = diaphragm on channels 1, 3, 5 U = diaphragm on channel 1 V = diaphragm on channels 3, 5		
2B8M4C	SOLENOID VALVES Size 1 and 2: 0 = island without solenoid valves M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO E = 2x2/2 NC F = 2x2/2 NO I = 1x2/2 NC + 1x2/2 NO L = free position			SOLENOID VALVE + PRESSURE REGULATOR on channel 1 (size 2 only): N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2x3/2 NC S = 2x3/2 NO T = 1x3/2 NC + 1x3/2 NO U = 2x2/2 NC X = 2x2/2 NO Y = 1x2/2 NC + 1x2/2 NO						
A	THREADED TERMINAL PLATES: A = 1, 12/14 in common 3/5, 82/84 threaded ports B = 1, 12/14 separated 3/5, 82/84 threaded ports C = 1, 12/14 in common 3/5, 82/84 with integrated silencer D = 1, 12/14 separated 3/5, 82/84 with integrated silencer			TERMINAL PLATES with FITTINGS FOR TUBE Ø 8 on PORT 1: E = 1, 12/14 in common 3/5, 82/84 conveyable F = 1, 12/14 separated 3/5, 82/84 conveyable G = 1, 12/14 in common 3/5, 82/84 with integrated silencer H = 1, 12/14 separated 3/5, 82/84 with integrated silencer				TERMINAL PLATES with FITTINGS FOR TUBE Ø 10 on PORT 1: I = 1, 12/14 in common 3/5, 82/84 conveyable L = 1, 12/14 separated 3/5, 82/84 conveyable M = 1, 12/14 in common 3/5, 82/84 with integrated silencer N = 1, 12/14 separated 3/5, 82/84 with integrated silencer		

In presence of identical consequent codes both for the subbases as for the valves you need to substitute the letter with the number.
Ex: HN5M-03A-ABCS-MMCCBBB-A is converted to HN5M-03A-ABCS-2M2C3B-A.

FIELDBUS VERSION CODING EXAMPLE

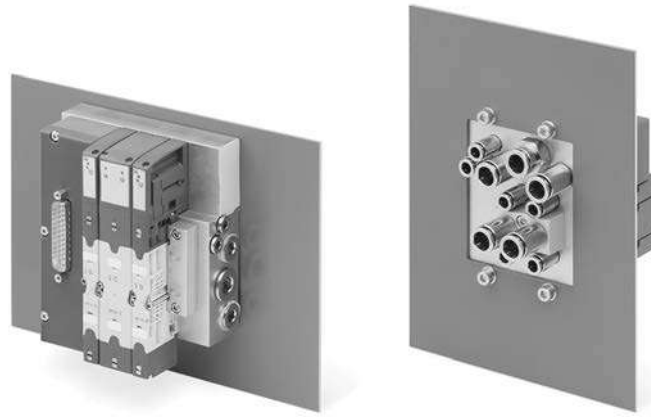
HN	5	01	-	ABCD	-	2Q4AZ2A	-	2B8M4C	-	A
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HN	SERIES									
5	SIZE 1 = 10.5 2 = 21 5 = Mixed									
01	PROTOCOL 01 = PROFIBUS-DP 02 = DeviceNet 03 = CANopen 04 = EtherNet/IP 05 = EtherCAT 06 = PROFINET 99 = Expansion module									
ABCD	INPUT / OUTPUT MODULES 0 = no module			INPUT / OUTPUT MODULES A = 8 Digital Inputs M8 B = 4 Digital Inputs M8 C = 2 Analog Inputs 4-20mA D = 2 Analog Inputs 0-10V E = 1 Analog Input 4-20mA + 1 Input 0-10V Q = 4 Digital Outputs M12 duo R = 2 Analog Outputs 4-20mA T = 2 Analog Outputs 0-10V U = 1 Analog Output 4-20mA + 1 Output 0-10V V = 1 Analog Output 4-20mA + 1 Input 0-10V Z = 1 Analog Output 4-20mA + 1 Input 4-20mA K = 1 Analog Output 0-10V + 1 Input 0-10V Y = 1 Analog Output 0-10V + 1 Input 4-20mA				INPUT / OUTPUT MODULES S = Initial subnet module		
2Q4AZ2A	SUBBASES FOR 2 SOLENOID VALVES SIZE 1 (*): A (AZ) = M7 threads B (BZ) = 4 fittings for tube Ø4 C (CZ) = 4 fittings for tube Ø6 D (DZ) = channel 1, 3, 5 closed; M7 threads E (EZ) = channel 1, 3, 5 closed; fittings tube Ø4 F (FZ) = channel 1, 3, 5 closed; fittings tube Ø6 G (GZ) = channel 3, 5 closed; M7 threads H (HZ) = channel 3, 5 closed; fittings tube Ø4 I (IZ) = channel 3, 5 closed; fittings tube Ø6 L (LZ) = channel 1 closed; M7 threads M (MZ) = channel 1 closed; fittings tube Ø4 N (NZ) = channel 1 closed; fittings tube Ø6 (* Subbases with "Z" at the end of their code are used with monostable solenoid valves FOR SOLENOID VALVES SIZE 2: Q = G1/8 threads R = fittings for tube Ø6 S = fittings for tube Ø8 P = G1/4 threads J = fittings for tube Ø10					SUBBASES FOR PNEUMATIC SUPPLY: X = supplementary supply and exhaust Y = supplementary supply and exhaust with integrated silencer W = supply from the exhausts FOR ELECTRICAL SUPPLY: K = separation of electrical supply KZ = M12 connector			SEALS: T = diaphragm on channels 1, 3, 5 U = diaphragm seal on channel 1 V = diaphragm seal on channels 3, 5	
2B8M4C	SOLENOID VALVES Size 1 and 2: 0 = island without solenoid valves M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO E = 2x2/2 NC F = 2x2/2 NO I = 1x2/2 NC + 1x2/2 NO L = free position					SOLENOID VALVE + PRESSURE REGULATOR on channel 1 (size 2 only): N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2x3/2 NC S = 2x3/2 NO T = 1x3/2 NC + 1x3/2 NO U = 2x2/2 NC X = 2x2/2 NO Y = 1x2/2 NC + 1x2/2 NO				
A	THREADED TERMINAL PLATES: A = 1, 12/14 in common 3/5, 82/84 threaded ports B = 1, 12/14 separated 3/5, 82/84 threaded ports C = 1, 12/14 in common 3/5, 82/84 with integrated silencer D = 1, 12/14 separated 3/5, 82/84 with integrated silencer			TERMINAL PLATES with FITTINGS Ø8: E = 1, 12/14 in common 3/5, 82/84 conveyable F = 1, 12/14 separated 3/5, 82/84 conveyable G = 1, 12/14 in common 3/5, 82/84 with integrated silencer H = 1, 12/14 separated 3/5, 82/84 with integrated silencer			TERMINAL PLATES with FITTINGS Ø10: I = 1, 12/14 in common 3/5, 82/84 conveyable L = 1, 12/14 separated 3/5, 82/84 conveyable M = 1, 12/14 in common 3/5, 82/84 with integrated silencer N = 1, 12/14 separated 3/5, 82/84 with integrated silencer			

X, Y and K sub-bases will be equipped with threads or cartridges of the same size of port 1, see the choice "Type of terminal plates". In presence of identical consequent codes both for sub-bases and for valves, you need to substitute the letter with the number.
Ex: HN501-ABCD-ABCS-MMCCBBB-A is converted to HN501- ABCD-ABCS-2M2C3B-A.

Valve islands Cabinet Version Series HC

Multipole connection with 25 or 37 pins
Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC



In applications which are subject to washing or operate in particularly dirty environments, having a specific solution represents a distinct advantage. With the Series HC it is possible to exploit the subbase and relative perimetric seal to close the passage window of all tubings. In this way the external environment is isolated from the internal part of the cabinet, guaranteeing a high protection level against solid and liquid particles that, upon entering, may damage the components.

All pneumatic connections are immediately available avoiding operations for the installation of panel mount fittings. Series HC uses the same valve functions as those available in Series HN.

Thanks to a particularly flexible use of the valve positions, different configurations can be realized (further details can be found on the following pages regarding the correct management of electrical signals).

The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series HC valve island catalogue, which is available online on the Camozzi Catalogue website (see section FIELD BUS AND MULTIPOLE SYSTEMS > Valve islands > Series HC valve island, Multipole and Fieldbus).

GENERAL DATA

PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC 2x2/2 NO 2x2/2 NC 1x2/2 NC+ 1xNO 2x3/2 NC 2x3/2 NO 1x3/2 NC+ 1x3/2 NO
Materials	spool in aluminium spool seals in HNBR other seals in NBR cartridges in brass body and end covers in technopolymer subbases in aluminium
Connections	Inlets 2 and 4, size 10.5mm: M7, tube Ø 4, tube Ø 6 Inlets 2 and 4, size 21mm: G1/4, tube Ø 6, tube Ø 8, tube Ø 10 Supply 1: G3/8, tube Ø 8, tube Ø 10, tube Ø 12 Supply 12/14: M7, tube Ø 6 (6512 6-M7-M) Exhausts 3 and 5: G1/4, tube Ø 10 (6512 10-1/4-M) Exhausts 82/84: M7, silencer (2931 M7)
Temperature	0 ÷ 50°C
Air specifications	Filtered compressed air, non lubricated, class [6:4:4] according to ISO 8573-1:2010. If lubrication is necessary, please only use oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be [6:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	10.5mm 21mm
Working pressure	-0.9 ÷ 10 bar
Pilot pressure	3 ÷ 7 bar 4.5 ÷ 7 bar (with working pressure exceeding 6 bar for the versions 2x2/2 and 2x3/2)
Flow rate	400 NL/min (10.5mm) 700 NL/min (21mm)
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION	
Type of Sub-D connector	25 or 37 pins
Max. absorption	0.8 A (with Sub-D connector 25 pins) 1 A (with Sub-D connector 37 pins)
Supply voltage	24 V DC +/-10%
Max. number of coils to operate	Size 10.5mm: 24 coils on 12 valve positions (with Sub-D connector 25 pins) 32 coils on 32 valve positions (with Sub-D connector 37 pins) Size 21mm: 24 coils on 6 valve positions (with Sub-D connector 25 pins) 32 coils on 16 valve positions (with Sub-D connector 37 pins) Sizes 10.5 mm and 21 mm simultaneously (further details can be found on the following pages the correct management of electrical signals)
Valve signalling	yellow led

CODING EXAMPLE - MULTIPOLE VERSION

HC	5	H	-	03A	-	T4GTGST3G	-	M2B2CBMZV3M	-	G
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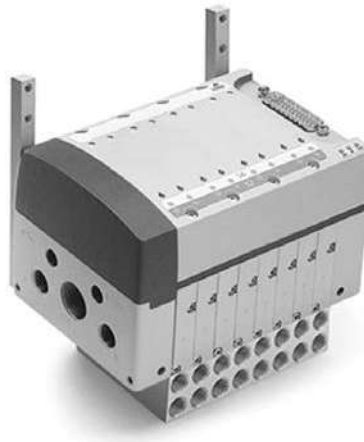
HC	SERIES															
5	SIZE 1 = 10,5 2 = 21 5 = Mixed															
H	ELECTRICAL CONNECTION M = Multipole 25 pin PNP H = Multipole 37 pin PNP															
03A	CONNECTION: 000 = without connector/cable CXA = Adaptor module for serial subnet			CONNECTOR WITH CABLE AXIAL OUTPUT: 03A = 3m 05A = 5m 10A = 10m 15A = 15m 20A = 20m 25A = 25m				CONNECTOR WITHOUT CABLE: 4XA = 25 pins axial 4XR = 25 pins radial 9XA = 37 pins axial 9XR = 37 pins radial								
T4GTGST3G	VALVE DIMENSION AND TYPE OF CONNECTION: Size 1 F = M7 threads G = with fittings for tube \varnothing 4 L = with fittings for tube \varnothing 6					Size 2 M = G1/4 threads N = with fittings for tube \varnothing 6 P = with fittings for tube \varnothing 8 T = with fittings for tube \varnothing 10 S = silencers for Z plate										
M2B2CBMZV3M	SOLENOID VALVES Size 1 and 2: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 CC C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO E = 2x2/2 NC F = 2x2/2 NO I = 1x2/2 NC + 1x2/2 NO L = free position					SOLENOID VALVE + PRESSURE REGULATOR on channel 1, Size 2: N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 CC R = 2x3/2 NC S = 2x3/2 NO T = 1x3/2 NC + 1x3/2 NO U = 2x2/2 NC X = 2x2/2 NO Y = 1x2/2 NC + 1x2/2 NO					PLATES: Z = plate for supplementary exhaust K = plate for supplementary supply					
G	CONNECTIONS: Internal servo-pilot Internal servo-pilot and silencers External servo-pilot External servo-pilot and silencers If the connection on the right side only, add X at the end of the code. For example: GX (Internal servo-pilot, silencers, fitting tube \varnothing 8) The connections on the sides that are not used are equipped with closing taps.										Supply fitting (1) Thread \varnothing 8 \varnothing 10 \varnothing 12 A E I P - G M R B F L Q - H N S Fitting \varnothing 10 on exhausts 3/5 Fitting \varnothing 6 on servo-pilot 12/14 Silencer on 82/84 If the connection on the left side only, add K at the end of the code. For example: GK A and B versions are equipped with taps on the left side and on the right one.					If the connection is on both sides, add W at the end of the code. For example: GW

In presence of identical consequent codes both for the subbases as for the valves you need to substitute the letter with the number.
Ex: HC5H-03A-TGGGGTGSTGGG-MBBCCBMZVMM-M-G is converted to HHC5H-03A-T4GTGST3G-M2B2CBMZV3M-G.

Valve islands, Individual, Multipole Series Y

Valve island with integrated Pneumatics and Electronics.

Available versions: Individual, Multipole. Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC



Sub-bases and valve bodies are integrated in a sole "module".
Different kinds of cartridges and spools are inserted in the module to configure the desired valve function.
The valve island can be expanded and modified and its maintenance is easy and safe.

Manuals, instruction sheets and configuration files can be found on <http://shop.camozzi.com> or on the QR code on the table of the product.

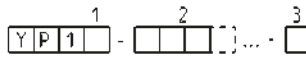
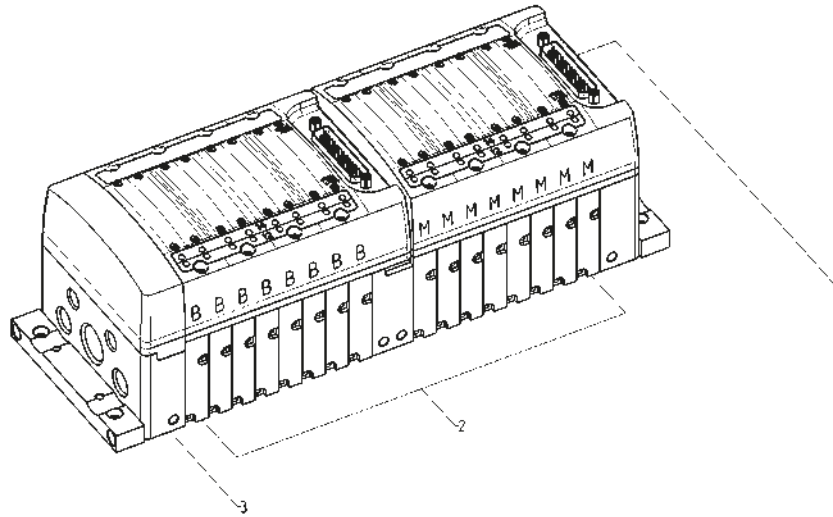
The complete list of components that can be integrated on the pneumatic part and on the electric part of the valve island, can be found in the Series Y valve islands catalogue, which is available online on the Camozzi Catalogue website (see section FIELDBUS AND MULTIPOLE SYSTEMS > Valve islands > Series Y valve islands, Multipole and Fieldbus).

GENERAL DATA

Enclosed in the package there is a label on which it is possible to write each individual coil number.

PNEUMATIC SECTION	
Valve construction	Spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC 2x2/2 NC 2x2/2 NO 1x2/2 NC + 1x2/2 NO 2x3/2 NC 2x3/2 NO 1x3/2 NC + 1x3/2 NO
Materials	Aluminium spool - brass cartridge - seals in NBR - end covers and covers in technopolymer
Connections	Outlets 2 and 4: G1/8 Inlets 1 and 11: G1/4 Pilot ports: 12/14 and respective exhaust 82/84 G1/8 Exhausts 3/5: G1/2
Temperature	0 ÷ +50°C
Air specifications	Filtered compressed air, non lubricated, class [7:4:4] according to ISO 8573.1 standard. If lubrication is necessary, please use only oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be [3:4:3] according to ISO 8573.1 standard.
Dimensions/size	12.5 mm
Working pressure	-0.9 ÷ 10 bar (with external servo pilot supply)
Pilot pressure	3 ÷ 7 bar
Flow rate	800 NI/min
ELECTRICAL SECTION	
Max. absorption	1300mA continuous 1600 mA latch
Operating temperature	0°C ÷ +50°C
Continuous current	ED 100%
Protection class	IP50 Individual version IP65 Multipole version PNP
Relative humidity	30-90% +25°C 30-50% +50°C
Conform with standards	EN 61326-1 EN 61010-1

CODING



Type of electrical connection (1)	Type of valve (2)	Type of terminal plates (3)
Individual	-	-
Individual M8	-	-
Multipole (PNP)	-	-
-	5/2 Monostable	M
-	5/2 Bistable	B
-	5/3 CC	V
-	2x2/2 1 NO + 1 NC	I
-	2x2/2 NC	E
-	2x2/2 NO	F
-	2x3/2 1 NO + 1 NC	G
-	2x3/2 NC	C
-	2x3/2 NO	A
-	Free position	L
-	Additional supply module from 2 and 4	W
-	Diaphragm seal (modules separation)	T
-	Through seal (modules separation)	P
-	Diaphragm seal (modules and cover separation)	T/
-	Through seal (modules and cover separation)	P/
-	Diaphragm seal 3/5 opened	U
-	Diaphragm seal 3/5-11 opened	H
-	Diaphragm seal 1-11 opened	N
-	Diaphragm seal 3/5 opened, modules and cover separ.	U/
-	Module with 2 positions and 3/5-11 closed	K
-	Module with 2 positions and 3/5-1-11 closed	R
-	Module with 2 positions and 1-11 closed	O
-	Module with 2 positions and 3/5 closed	Q
-	Additional supply module	X
-	-	in common 1/11 - 12/14 individual 82/84 - 3/5
-	-	in common 1/11 individual 12/14 - 82/84 - 3/5
-	-	individual 1/11 - 12/14 - 82/84 - 3/5
-	-	in common 1/11 - 12/14 individual 82/84 - 3/5
-	-	in common 1/11 individual 12/14 - 82/84 - 3/5
-	-	individual 1/11 - 12/14 - 82/84 - 3/5
-	-	in common 1/11 - 12/14 individual 82/84 - 3/5
-	-	in common 1/11 individual 12/14 - 82/84 - 3/5
-	-	individual 1/11 - 12/14 - 82/84 - 3/5
-	-	modules without terminal plate

Multi-serial module Series CX

Interface with: PROFIBUS, CANopen, DeviceNet, EtherNet/IP, PROFINET, EtherCAT
Compatible with all Camozzi valve islands



The Series CX serial module, with IP65 protection class, interface with all major serial communication protocols as well as the new generation EtherCAT, EtherNet/IP and PROFINET protocols. The highly resistant aluminium structure makes it suitable for mountings even in hard application conditions.

This serial module can be coupled with electric input and output modules and is able to handle up to a maximum of 1024 I/O. Its interface modules enable direct connection to Series F, HN and 3 valve islands. Through a subnet the connection system can be extended to remote valve islands.

Manuals, instruction sheets and configuration files can be found on <http://shop.camozzi.com> or on the QR code on the label of the product.

The complete list of components that can be integrated on the pneumatic part and of the valve island, can be found in the Series CX multi-serial module catalogue, which is available online on the Camozzi Catalogue website (see section FIELDBUS AND MULTIPOLE SYSTEMS > Valve islands > Series CX multi-serial module Multipole and Fieldbus).

GENERAL DATA

Number of digital outputs	1024
Number of digital inputs	1024
Maximum input absorption	1,5 A
Maximum output absorption	3 A
Logical supply voltage *	24 V DC +/-10%
Power supply voltage *	24 V DC +/-10%
Protection	overload and reverse polarity
Protection class	IP65
Conform with standards	EN-61326-1 EN-61010-1
Operating temperature	0-50°C
Material	Aluminium

* the voltage range can change according to the range required by the external connected elements.

CODING EXAMPLE

CX	05	-	2AC	-	QT2S
----	----	---	-----	---	------

CX	SERIES				
05	PROTOCOL 01 = PROFIBUS 02 = DeviceNet	03 = CANopen 04 = EtherNet/IP	05 = EtherCAT 06 = PROFINET	99 = Expansion Module	
2AC	INPUTS 0 = no module nA = 8 digital inputs M8	nB = 4 digital inputs M8 nC = 2 IN 4-20 mA	nD = 2 IN 0-10 V nE = 1 IN 4-20 mA + 1 IN 0-10 V		
QT2S	OUTPUTS 0 = no module nQ = 4 M12 duo digital outputs nR = 2 OUT 4-20 mA	nT = 2 OUT 0-10 V nU = 1 OUT 4-20 mA + 1 OUT 0-10 V nV = 1 OUT 4-20 mA + 1 IN 0-10 V	nZ = 1 OUT 4-20 mA + 1 IN 4-20 mA nK = 1 OUT 0-10 V + 1 IN 0-10 V nY = 1 OUT 0-10 V + 1 IN 4-20 mA	nS = initial subnet module	

Multi-serial module Series CX4



Interface with:
PROFIBUS, CANopen, DeviceNet, EtherNet/IP, PROFINET, EtherCAT
Compatible with all Camozzi valve islands



Series CX4 multi-serial module can interface with the most common fieldbus protocols, like Profibus-Dp, CANOpen, EtherCAT, EtherNet/IP, PROFINET. The possibility to enlarge with both Digital and Analog I/O modules, the acquisition of signals coming from Bridge, RTD or TC sensors, the resolution of up to 24 bit and the high number of manageable signals make it particularly suitable for different needs.

Connectable with PC through Micro-USB port, check and configuration of connected components by means of UVIX software. Configuration through Fieldbus. By means of a mechanical interface connection it is used in combination with the Series D valve islands.

More detailed information and descriptions can be found at: <http://shop.camozzi.com>

GENERAL DATA

Number of digital outputs	128
Number of analogic outputs	16
Number of digital inputs	128
Number of analogic inputs	16
Maximum input absorption	1,5 A
Maximum output absorption	2,5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Protection	overload and reverse polarity
Protection class	IP65 (IP20 in case of module I/O with terminal block)
Conform with standards	EN-61131-2
Operating temperature	0-50°C
Material	Polymer

CODING EXAMPLE

CX	4	01	W	-	2A2Q	-	R
-----------	----------	-----------	----------	----------	-------------	----------	----------

CX	SERIES
4	VERSION 4 = CX4
01	PROTOCOL 00 = Base closed without Fieldbus cover 01 = PROFIBUS 02 = CANopen 03 = EtherNet/IP 04 = EtherCAT 05 = PROFINET
W	INTERFACE 0 = No interface W = WLAN
2A2Q	INPUT/OUTPUT MODULES 0 = no module A = 8 digital inputs M8 B = 16 digital inputs terminal block (Push-in) connection C = 2 analog inputs (config. 0-10V, ±10V, 0-20mA, 4-20mA, ±20mA) M12 D = 2 analog inputs (config. 0-10V, ±10V, 0-20mA, 4-20mA, ±20mA) terminal block (Push-in) connection E = 2 BRIDGE inputs M12 F = 2 BRIDGE inputs terminal block (Push-in) connection G = 2 RTD inputs M12 (PT100, PT200, PT500, PT1000) H = 2 RTD inputs terminal block (Push-in) connection (PT100, PT200, PT500, PT1000) L = 2 TCM12 inputs (THERMOCOUPLES) M = 2 TC inputs terminal block (Push-in) connection (THERMOCOUPLES) Q = 8 digital outputs M8 R = 16 digital outputs terminal block (Push-in) connection T = 2 Analog outputs (config. 0-10V,±10V,0-20mA, 4-20mA,±20mA), M12 U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block W** = Closed base without I / O cover
R	FIXING TYPE = direct R = DIN rail

**The closed base without I / O cover must always be placed after the other modules if present ex: CX401W-2A2W-R...

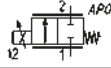
Direct acting proportional valves Series AP

2/2-way proportional valves, NC Sizes: 16 - 22 mm

size 22mm, body with threaded ports

For use with vacuum
connect the line to port 2

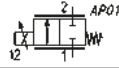
Mod.
AP-7211-FR2-U7*
AP-7211-HR2-U7*
AP-7211-LR2-U7*
AP-7211-NR2-U7*
AP-7211-QR2-U7*
AP-7211-FW2-U7*OX2
AP-7211-HW2-U7*OX2
AP-7211-LW2-U7*OX2
AP-7211-NW2-U7*OX2
AP-7211-QW2-U7*OX2



size 22mm, low flanged body

For use with vacuum
connect the line to port 2

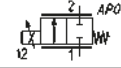
Mod.
AP-7215-FR2-U7*
AP-7215-HR2-U7*
AP-7215-LR2-U7*
AP-7215-NR2-U7*
AP-7215-QR2-U7*
AP-7215-FW2-U7*OX2
AP-7215-HW2-U7*OX2
AP-7215-LW2-U7*OX2
AP-7215-NW2-U7*OX2
AP-7215-QW2-U7*OX2



size 16mm, body with threaded ports

For use with vacuum
connect the line to port 2

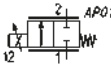
Mod.
AP-6210-DR2-GP*
AP-6210-FR2-GP*
AP-6210-HR2-GP*
AP-6210-LR2-GP*
AP-6210-DW2-GP*OX2
AP-6210-FW2-GP*OX2
AP-6210-HW2-GP*OX2
AP-6210-LW2-GP*OX2



size 16mm, low flanged body

For use with vacuum
connect the line to port 2

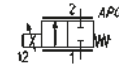
Mod.
AP-6215-DR2-GP*
AP-6215-FR2-GP*
AP-6215-HR2-GP*
AP-6215-LR2-GP*
AP-6215-DW2-GP*OX2
AP-6215-FW2-GP*OX2
AP-6215-HW2-GP*OX2
AP-6215-LW2-GP*OX2



size 16mm, rear flanged body

For use with vacuum
connect the line to port 2

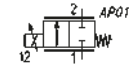
Mod.
AP-6214-DR2-GP*
AP-6214-FR2-GP*
AP-6214-HR2-GP*
AP-6214-LR2-GP*
AP-6214-DW2-GP*OX2
AP-6214-FW2-GP*OX2
AP-6214-HW2-GP*OX2
AP-6214-LW2-GP*OX2



size 16mm - body in PVDF

For use with vacuum
connect the line to port 2

Mod.
AP-621L-DR3-GP*
AP-621L-FR3-GP*
AP-621L-HR3-GP*
AP-621L-LR3-GP*
AP-621L-DW3-GP*OX2
AP-621L-FW3-GP*OX2
AP-621L-HW3-GP*OX2
AP-621L-LW3-GP*OX2



* choose the desired voltage

CODING EXAMPLE

AP	-	7	2	1	1	-	L	R	2	-	U	7	11	OX2
AP	SERIES													
7	BODY 6 = size 16 mm 7 = size 22 mm													
2	NUMBER OF WAYS 2 = 2-way													
1	VALVE FUNCTION 1 = NC													
1	PORTS 0 = M5 (size 16mm only) 1 = G1/8 (size 22mm only) 4 = with rear flanges (size 16mm only) 5 = with lower flanges L = male hose adaptor (for body in PVDF only, size 16mm)													
L	ORIFICE D = \varnothing 0.8 mm (size 16mm only) F = \varnothing 1 mm H = \varnothing 1.2 mm L = \varnothing 1.6 mm N = \varnothing 2 mm (size 22mm only) Q = \varnothing 2.4 mm (size 22mm only)													
R	SEAL MATERIAL R = NBR W = FKM E = EPDM													
2	BODY MATERIAL 2 = brass 3 = PVDF (size 16mm only)													
U	ENCAPSULATING MATERIAL G = PA (size 16mm only) U = PET (size 22mm only)													
7	SOLENOID DIMENSIONS P = 16x26 DIN EN 175301-803-C (size 16mm only) 7 = 22x22 DIN 43650 B (size 22mm only)													
11	SOLENOID VOLTAGE H = 12 V DC 3 W (size 16mm only) 7 = 24 V DC 3 W (size 16mm only) 11 = 24 V DC 6.5 W (size 22mm only) 12 = 12 V DC 6.5 W (size 22mm only)													
	COIL ORIENTATION = fastons opposite to pneumatic ports/same side of the outlet 5 = fastons towards pneumatic ports/same side of the inlet													
OX2	VERSION OX2 = version with ASTM G93-03 Certification Level B (FKM seals only) = non-certified version													

**Connector Mod. 125-800 DIN 43650
pitch 9.4 mm**

For size 16 mm only

Mod.
125-800
**Connector Mod. 125-550 - DIN 43650
pitch 9.4 mm with cable**

For size 16 mm only

Mod.
125-550-1
In-line connectors with cable Mod. 125-553

For size 16 mm only

Mod.
125-553-2
125-553-5
Connectors Mod. 122-800 DIN 43650
For size 22 mm only
Mod. 122-800EX: for ATEX
certified solenoids Mod. U7*EX,
with anti-screwing
off screw Mod. TORX.Mod.
122-800
122-800EX
Connectors Mod. 122-550 DIN 43650 with cable

For size 22 mm only

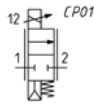
Mod.
122-550-1
122-550-5

Direct acting and pressure compensated proportional solenoid valves Series CP

Function: 2/2-way NC
Sizes: 16 and 20 mm

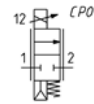
size 16mm

Mod.
CPN-C621-FWX-0P1
CPN-C621-GWX-0P1
CPN-C621-NWX-0P1
CPN-C621-FWX-0P3
CPN-C621-GWX-0P3
CPN-C621-NWX-0P3
CPN-C621-FWX-0P5
CPN-C621-GWX-0P5
CPN-C621-NWX-0P5



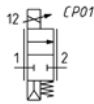
size 16m pressure compensated

Mod.
CP-C821-TWX-0P13
CP-C821-TWX-0P14
CP-C821-TWX-0P15



size 20mm

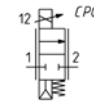
Mod.
CP-C721-MWX-072
CP-C721-MWX-074
CP-C721-MWX-076
CP-C721-PWX-072
CP-C721-PWX-074
CP-C721-PWX-076



size 20mm pressure compensated

Working nominal pressure: 2.8 bar

Mod.
CP-C921-TWX-0710
CP-C921-TWX-0711
CP-C921-TWX-0712



CODING EXAMPLE

CP	-	C	6	2	1	-	G	W	X	-	0	P	3
----	---	---	---	---	---	---	---	---	---	---	---	---	---

CP	SERIES												
C	PORTS: C = cartridge S = subbase												
6	BODY: 6 = size 16mm 7 = size 20mm				8 = size 16 pressure compensated 9 = size 20 pressure compensated								
2	NUMBER OF PORTS: 2 = 2-way												
1	FUNCTION: 1 = NC												
G	ORIFICE DIAMETRES: F = 1mm (size 16mm only) G = 1.5mm (size 16mm only)				N = 2mm (size 16mm only) M = Ø 3 mm (size 20mm only)				P = Ø 3.5 mm (size 20mm only) T = Ø 4.4 mm (pressure compensated only)				
W	SEAL MATERIAL: W = FKM												
X	BODY MATERIAL: x = Stainless steel												
0	OVERMOULDING MATERIAL OF COIL: 0 = cartridge												
P	COIL DIMENSIONS: P = Ø 16 7 = Ø 20												
3	VOLTAGE: 1 = 6 V DC 3.1 W (size 16 mm only) 2 = 12 V DC 4.3 W (size 20 mm only) 3 = 24 V DC 3.1 W (size 16 mm only) 4 = 24 V DC 4.3 W (size 20 mm only)			5 = 12 V DC 3.1 W (size 16 mm only) 6 = 6 V DC 4.3 W (size 20 mm only) 10 = 6 V DC 4.2 W (size 20 mm only, pressure compensated) 11 = 24 V DC 4.2 W (size 20 mm only, pressure compensated)				12 = 12 V DC 4.2 W (size 20 mm only, pressure compensated) 13 = 6 V DC 3 W (size 16 mm only, pressure compensated) 14 = 12 V DC 3 W (size 16 mm only, pressure compensated) 15 = 24 V DC 3 W (size 16 mm only, pressure compensated)					

Sub-base

Mod.
CP-S6
CP-S7
CP-S8



Electronic control device Series 130 for proportional valves

PWM control device, with current control system for direct acting proportional valves

NOTE: it is possible to create configurations with voltage, power and PWM frequency values that are not shown in the table below. For further information we suggest you to contact our technical department.



Mod.		
130-222	130-433	130-463
130-322	130-533	130-363
130-252	130-233	130-263
130-352	130-442	130-473
130-213	130-342	130-373
130-313	130-242	130-273

CODING EXAMPLE

130	-	2	2	2
------------	---	----------	----------	----------

130	SERIES
2	VOLTAGE: 2 = 24 V DC (max power 24 W) 3 = 12 V DC (max power 12 W) 4 = 6 V DC (max power 6 W) 5 = 11 V DC (max power 11 W)
2	POWER: 1 = 3 W 2 = 6.5 W 3 = 3.2 W 4 = 4.3 W 5 = 10 W 6 = 4.2 W 7 = 2.5 W
2	PWM FREQUENCY: 2 = 500 Hz 3 = 1 KHz

Connector Mod. 125-800 DIN 43650 pin spacing 9,4mm

Mod. 125-800



Connector Mod. 122-800 DIN 43650 (PG)

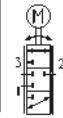
Mod. 122-800



Digital proportional servo valves Series LR

3/3-way direct acting servo valves for the flow (LRWD2), pressure (LRPD2) and position (LRXD2) control

PNEUMATIC SYMBOL



CODING EXAMPLE

L	R	W	D	2	-	3	4	-	1	-	A	-	00
---	---	---	---	---	---	---	---	---	---	---	---	---	----

L	SERIES: L = proportional servo valves	
R	TECHNOLOGY: R = rotating spool	
W	VERSION: W = flow control - P = pressure control - X = position control	
D	ELECTRONICS: D = digital	
2	MODEL: 2 = compact DIN-RAIL	
3	FUNCTION: 3 = 3/3-way	
4	NOMINAL DIAMETER: 4 = 4 mm - 6 = 6 mm	
1	COMMAND SIGNAL (Setpoint): 1 = +/- 10 V - 2 = 0 - 10 V - 5 = 4 - 20 mA	
A	INPUT SIGNAL: 2 = 0 - 10 V (LRPD2 and LRXD2 only) 4 = 0 - 5 V (LRPD2 and LRXD2 only) 5 = 4 - 20mA (LRPD2 and LRXD2 only)	A = internal encoder (LRWD2 only) B = 1 bar (internal sensor - LRPD2 only) D = 10 bar (internal sensor - LRPD2 only) E = 250 mbar (internal sensor - LRPD2 only) F = +1/-1 bar (internal sensor - LRPD2 only)
00	CABLE: 00 = no cable	2F = straight cable of 2 m 2R = 90° cable of 2 m 5F = straight cable of 5 m 5R = 90° cable of 5 m

PROPORTIONAL TECHNOLOGY

8

Fixing foot Mod. LRADB

Supplied with:
2x feet
4x screws



Mod. LRADB

Mounting brackets for DIN-rail Mod. PCF-EN531

DIN EN 50022 (7,5mm x 35mm - width 1)
Supplied with:
2x mounting brackets
2x screws M4x6 UNI 5931
2x nuts



Mod. PCF-EN531

Electrical tee box Mod. CS-AA08EC

Connection valve-PLC-external transducer



Mod. CS-AA08EC

Straight female connector M12 8 pin

For electric supply and commands



Mod. CS-LF08HC

Cable with straight female connector M12 8 pin

For electrical supply and commands



Mod. CS-LF08HB-C200
CS-LF08HB-C500

Cable with angular (90°) female connector M12 8 pin

For electric supply and commands



Mod. CS-LR08HB-C200
CS-LR08HB-C500

USB to Micro USB cable Mod. G11W-G12W-2

For the hardware configuration of the Camozzi products



Mod. G11W-G12W-2

Open Frame proportional controller Series OF

Modular system for proportional control of pressure, flow and position



- » Closed loop flow control
- » Compatible to be used with oxygen
- » Composed of two base modules: Head and Expansion
- » Customised, turnkey solutions
- » Analog, CanOpen or IO-Link interface

The Open Frame Controller can be easily configured to meet specific application needs, to provide the most efficient, turnkey solutions, this reducing assembly times and system complexity.

The different Head and Expansion modules can be combined and driven through simple serial communications, making the control of complex applications easier. Typical applications could include the mixing of different gases, piloting different pressures in different parts of the machine.

The new "Open Frame Controller" system is a platform for providing closed loop control of flow, pressure and position and is suitable for Industry 4.0 applications. The system is composed of two base modules: Head and Expansion.

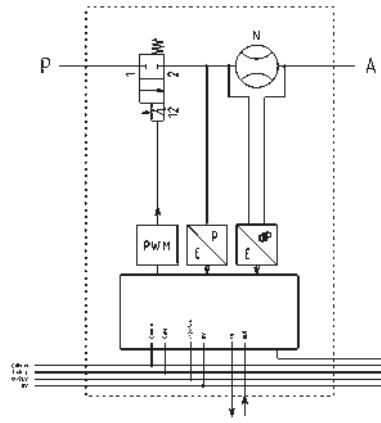
GENERAL DATA

Construction	modular, compact, direct acting
Number of ways	2/2-way - 3/3-way - Parallel
Flow	max. 90 NL/min
Media	compressed air, inert gases and oxygen. Filtering according to ISO 8573-1 class 7.4.4
Supply pressure	-1 ÷ 10 bar
Operating pressure	-1 ÷ 10 bar
Ports	G1/8
Materials	seals: FKM
Mounting position	any position
Analogical input	0-10 V or 4-20 mA
Analogical output	0-10 V
Supply voltage, Current absorbed	24 VDC 0,3A or 12 VDC 0,6A (Head or Expansion Module)
BUS interface	CANopen CiA 301 IO-Link (connection type portclass B)
Protection class	IP20
Hysteresis	Pressure control version ≤ 3%FS; Flow control version ≤ 2%FS
Repeatability	Pressure control version ≤ 1%FS for pressures less than 1 Bar ≤ 2%FS; Flow control version ≤ 2%FS
Resolution	Flow control version ≤ 2%FS
Linearity	Pressure control version ≤ 2%FS; Flow control version ≤ 5%FS
Environmental temperature (min and max °C)	0 ÷ 60°C For low temperature on request.
Weight	300 g Single module

PNEUMATIC SCHEME

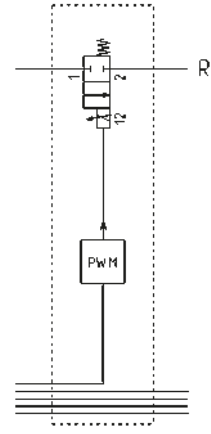
HEAD MODULE SCHEME

P = pressure inlet head
A = output head module
N = calibrated nozzle



EXPANSION MODULE SCHEME

R = expansion exhaust

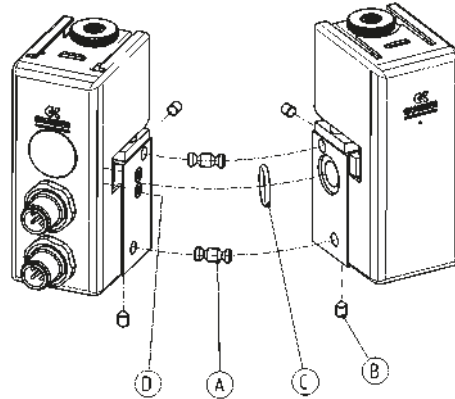


MOUNTING EXAMPLE

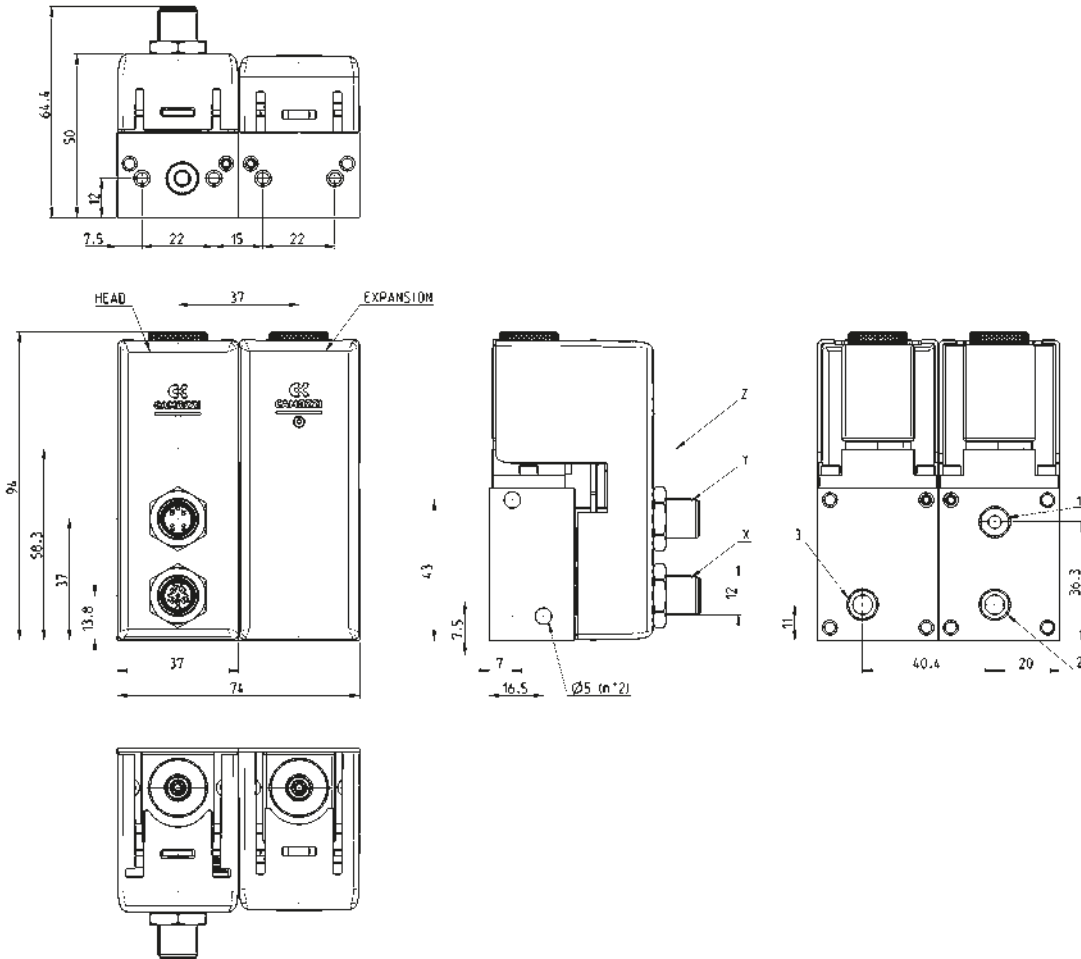
To correctly mount the modular HEAD and EXPANSION components, insert the fixing elements (A) in the special seats between the two bodies and the O-Ring (C) in the seat on the EXPANSION body.

Join the two bodies and fix them into position with the fixing nuts (B), close to the side in contact.

The positions of the covers (D), prepared at the factory, cannot be changed.



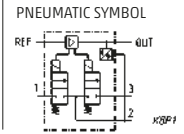
Open Frame proportional controller - dimensions



Mod.	X	Y	Z	A	B	C	M
OF-2	M12 5 PIN (Male)	M12 5 PIN (Male)	Micro USB	G1/8	G1/8	G1/8	M3 thread for mounting

Electronic proportional micro regulator Series K8P

Proportional regulator for pressure control



CODING EXAMPLE

K8P	-	0	-	D	5	2	2	-	0
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K8P	SERIES
0	BODY DESIGN: 0 = Stand alone S = Standard Sub-base L = Light Sub-base T = Light Sub-base for pressure remote reading
D	WORKING PRESSURE: D = 0 - 10 bar E = 0 - 3 bar F = 0 - 7 bar B = 0 - 1 bar
5	VALVE FUNCTIONS: 5 = 3/2-way NC
2	COMMAND: 2 = 0-10 V DC 3 = 4-20 mA
2	OUTPUT SIGNAL: 2 = 0-10 V
0	CABLE LENGTH: 0 = without cable 2F = straight cable, 2 m 2R = right angle cable (90 degrees), 2 m 5F = straight cable, 5 m 5R = right angle cable (90 degrees), 5 m
OX1	VERSIONS: = standard OX1 = for use with oxygen (in compliance with ASTM G93-03 Level E)
<p>APPLICATIONS The K8P proportional regulator can be used as a pilot valve to control the opening of high flow valves or to check the high flow pressure regulators proportionally (version with sub-base for the pressure remote reading). It enables proportional control of power in lifting systems and can be used with inert gas to maintain a constant pressure in pneumatic cylinders or expansion valve chambers. It has also been designed to maintain a constant pressure during the pulling power applied to the wires in winding machines, to modulate pressure during the smoothing process in woodworking machines or to adjust the opening of diaphragm valves.</p>	

Standard Sub-base

The use of a silencer (Mod. 2939 4) on the exhaust is recommended.

Mod.
K8P-AS

Light Sub-base

The use of a silencer (Mod. 2931 M5, 2938 M5, 2901 M5) on the exhaust is recommended.

Mod.
K8P-AL

Light Sub-base for pressure remote reading

The use of a silencer (Mod. 2931 M5, 2938 M5, 2901 M5) on the exhaust is recommended.

Mod.
K8P-AT

Mounting bracket for DIN rail

DIN EN 50022 (7,5mm x 35mm - width 1)
Supplied with:
1x mounting bracket
1x screw M4x6 UNI 5931
This accessory cannot be used with the Light sub-base.

Mod.
PCF-K8P

Bracket for horizontal mounting, for standard sub-base

Supplied with:
1x mounting bracket
2x screws M3x8 UNI 5931

Mod.
K8P-B1

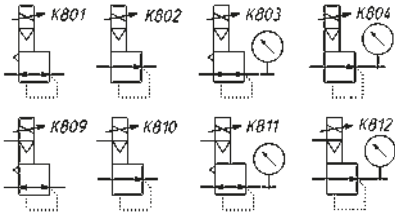
Circular M8 4-pin connectors, Female

With PU sheathing, non shielded cable.
Protection class: IP65

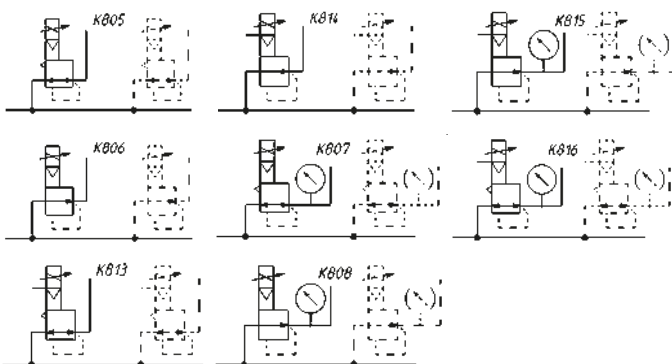
Mod.
CS-DF04EG-E200
CS-DF04EG-E500
CS-DR04EG-E200
CS-DR04EG-E500

Proportional pressure regulator and proportional flow valve Series MX-PRO

Regulator and valve ports (standard and Manifold): G1/2
 Regulator: with built-in pressure gauge or G1/8 threaded ports
 Valve: without pressure gauge



K801 = relieving, electrical command
 K802 = NO relieving, electrical command
 K803 = relieving, electrical command, built-in pressure gauge
 K804 = NO relieving, electrical command, built-in pressure gauge
 K809 = relieving, electrical command, ext. servo pilot supply
 K810 = NO reliev., electrical command, ext. servo pilot supply
 K811 = reliev., el. com., built-in pr. gauge, ext. servo pilot supply
 K812 = NO reliev., el. com., built-in pr. gauge, ext. servo pilot sup.












K805 = MANIFOLD reg., relieving, electrical command
 K806 = MANIFOLD reg., NO relieving, electrical command
 K807 = MANIFOLD reg., relieving, electrical command and built-in pressure gauge
 K808 = MANIFOLD reg., NO relieving, electrical command and built-in pressure gauge
 K813 = MANIFOLD reg., relieving, electrical command, and external servo pilot supply
 K814 = MANIFOLD reg., NO relieving, electrical command, and external servo pilot supply
 K815 = MANIFOLD reg., relieving, electrical command, built-in pressure gauge and external servo pilot supply
 K816 = MANIFOLD reg., NO relieving, electrical command, built-in pressure gauge and external servo pilot supply

CODING EXAMPLE

MX	2	-	1/2	-	R	CV	2	0	4	-	LH
MX	SERIES										
2	SIZE: 2 = G1/2										
1/2	PORTS: 1/2 = G1/2										
R	FUNCTIONING: R = pressure regulator M = Manifold pressure regulator V = flow valve W = Manifold flow valve										
CV	COMMAND: CV = electrical command 0-10 V DC (regulator only) CA = electrical command 4-20 mA (regulator only)					XV = electrical command 0-10 V DC with external servo pilot supply for use with oxygen XA = electrical command 4-20 mA DC with external servo pilot supply for use with oxygen EV = electrical command 0-10 V DC with external servo pilot supply EA = electrical command 4-20 mA with external servo pilot supply					
2	REGULATOR SETTING RANGE: 1 = working pressure 0.15 ÷ 3 bar 2 = working pressure 0.5 ÷ 10 bar * 3 = working pressure 0.05 ÷ 1 bar 4 = working pressure 0.35 ÷ 7 bar					VALVE SETTING RANGE: 7 = flow valve					
0	DESIGN TYPE: 0 = relieving (regulator only) 1 = without relieving										
4	PRESSURE GAUGE: 0 = without pressure gauge, with threaded port for gauges 2 = with built-in pressure gauge 0-6 bar (regulator only)					3 = with built-in pressure gauge 0-10 bar (regulator only) 4 = with built-in pressure gauge 0-12 bar (regulator only)					
LH	FLOW DIRECTION: = from left to right (standard) LH = from right to left										
OX1	= suitable for use with oxygen (V and W flow valve only)										

*For configurations with a pressure control range of 10 bar in the OX1 version, it is mandatory to use the version with external servo pilot supply with air.

<p>Rapid clamp kit</p> <p>The kit MX2-X is supplied with: 1 rapid clamp, 1 O-ring OR 3125 *, 2 exagonal nuts M5, 2 screws M5x69. The kit MX2-Z is supplied with: 1 rapid clamp, 1 O-ring OR 3125 *, 1 exagonal nut M5, 1 screw M5x69, 1 screw M5x85 for wall fixing. * can be ordered separately (cod. 160-39-11/19) Materials: technopolymer clamp, NBR O-ring, zinc-plated steel nuts and screws.</p>  <p>Mod. MX2-X MX2-Z</p>	<p>Rapid clamp kit with wall fixing brackets</p> <p>The kit MX2-Y is supplied with: 1 wall rapid clamp, 1 O-ring OR 3125 **, 2 exagonal nuts, 2 screws M5x69. ** can be ordered separately (cod. 160-39-11/19) Materials: technopolymer clamp, NBR O-ring, zinc-plated steel nuts and screws.</p>  <p>Mod. MX2-Y</p>	<p>Terminal flanges (IN/OUT)</p> <p>The kit is supplied with: - 1 flange INLET side - 1 flange OUTLET side Materials: painted aluminium flanges.</p>  <p>Mod. MX2-1/2-FL</p>
<p>Rapid clamps kit + flanges</p>  <p>Mod. MX2-1/2-HH MX2-1/2-JJ</p>	<p>Rapid clamps kit with wall fixing brackets + flanges</p>  <p>Mod. MX2-1/2-KK</p>	<p>Block for pressure gauge fixing</p> <p>The kit is supplied with: 1 block 1 grain 2 screws 1 seal</p>  <p>Mod. MX2-R26/1-P</p>
<p>O-ring for assembling</p>  <p>Mod. 160-39-11/19</p>	<p>Circular M8 4-pin connectors, Female</p> <p>With PU sheathing, non shielded cable. Protection class: IP65</p>  <p>Mod. CS-DF04EG-E200 CS-DF04EG-E500 CS-DR04EG-E200 CS-DR04EG-E500</p>	<p>Pressure gauges with rear connection</p> <p>Precision class Cl1,6</p>  <p>Mod. M043-P02,5 M053-P04 M043-P04 M053-P06 M043-P06 M053-P10 M043-P10 M053-P12 M043-P12</p>

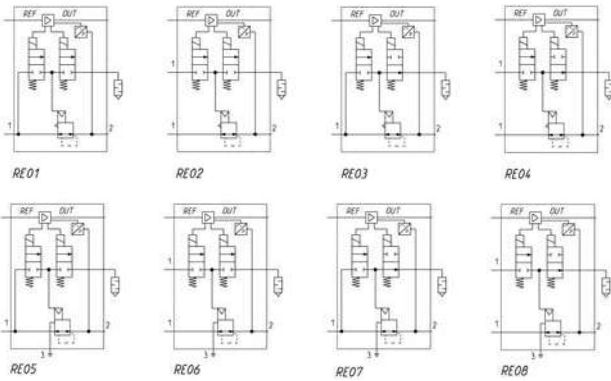
Proportional pressure regulator with CoilVision® technology Series PRE

Two sizes available: PRE1 and PRE2
Ports G1/8 - G1/4 - G3/8 - 1/4NPTF

COILVISION®
TECHNOLOGY

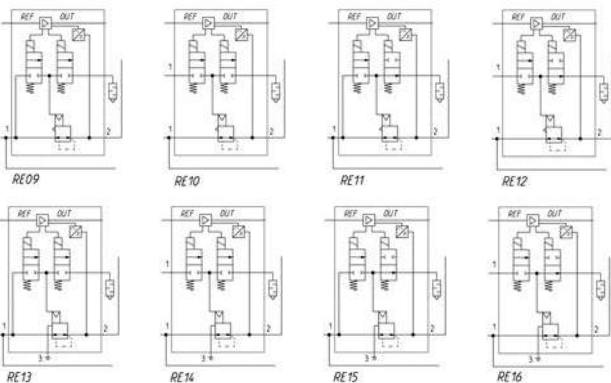


PNEUMATIC SYMBOLS OF SERIES PRE PROPORTIONAL PRESSURE REGULATOR, size 1 and 2



- RE01 = Version with internal servo-pilot supply, two pilot valves 2/2 NC
- RE02 = Version with external servopilot supply and two pilot valves 2/2 NC
- RE03 = Version with internal servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)
- RE04 = Version with external servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)
- RE05 = Version with internal servo-pilot supply and two pilot valves 2/2 NC, exhaust conveyable
- RE06 = Version with external servopilot supply and two pilot valves 2/2 NC, exhaust conveyable
- RE07 = Version with internal servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable
- RE08 = Version with external servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable

PNEUMATIC SYMBOLS OF SERIES PRE PROPORTIONAL PRESSURE REGULATOR, manifold version size 1 and 2



- RE09 = Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC
- RE10 = Manifold version with external servo-pilot supply and two pilot valves 2/2 NC
- RE11 = Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust
- RE12 = Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust
- RE13 = Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable
- RE14 = Manifold version with external servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable
- RE15 = Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable
- RE16 = Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable

CODING EXAMPLE

PRE	1	04	-	D	D	5	I	2	E	-	00	0D	
-----	---	----	---	---	---	---	---	---	---	---	----	----	--

PRE	SERIES
1	Size: 1 = Size 1 2 = Size 2
04	CONNECTION PORTS: 04 = G1/4 38 = G3/8 (only size 2) M4 = G1/4 Manifold 14 = NPTF 1/4 (only size 1) N4 = 1/4 NPTF Manifold 08 = G1/8 (only size 1) M8 = G1/8 Manifold (only size 1)
D	DISPLAY: E = without display D = with display
D	WORKING PRESSURE (1 bar = 14,5 psi): B = 0-1 bar E = 0-4 bar F = 0-6 bar (standard for OX1 version with internal servo pilot supply) G = 0-7 bar D = 0-10,3 bar 2 = external sensor 0-10 or 4-20 mA (only with command signal 2 or 4) The external sensor is not included with the regulator. It must be bought separately.
5	VALVE FUNCTIONS: 5 = Standard, 3-way version, NC. Size 1 and 2 with port 3 and pilot exhaust not conveyable 6 = Version with integrated exhaust valve (maximum working pressure B, E, F or G). Size 1 and 2 with port 3 and pilot exhaust not conveyable 7 = Standard, 3-way version, NC. Size 1 and 2 with port 3 and pilot exhaust conveyable 8 = Version with integrated exhaust valve (maximum working pressure B, E, F or G). Size 1 and 2 with port 3 and pilot exhaust conveyable
I	PILOT SUPPLY: I = Internal E = External
2	COMMAND SIGNAL: 2 = 0-10 V 4 = 4-20 mA D = 5 bit Preset, 32 different pressure values I = IO-Link
E	DIGITAL FEEDBACK SIGNAL: N = without digital output (only with IO-Link version) E = error signal (only with input signal 2, 4, D) P = pressure switch (only with input signal 2, 4, D) W = window (only with input signal 2, 4, D)
00	CABLE LENGTH: 00 = No cable 2F = 2mt straight unshielded 2R = 2mt 90° cable unshielded 5F = 5mt straight unshielded 5R = 5mt 90° cable unshielded 2FC = 2mt straight shielded 2RC = 2mt 90° shielded 5FC = 5mt straight shielded 5RC = 5mt 90° shielded
0D	DIAGNOSTIC ACCESSORIES: = without diagnosis (only with input signal 2, 4, D) 0D = basic diagnostics (only with input signal 2, 4, D) 0W = wireless diagnostics (only with input signal 2, 4, D) DW = wireless diagnostics + CoilVision® (only with input signal 2, 4, D)) 1D = IO-Link + CoilVision® diagnostics (only with IO-Link version)
OX1	CERTIFICATIONS: = no certification OX1 = compatible with oxygen
Version suitable to be used with oxygen. With a working pressure of Max 6 Bar, available both with internal and external pilot supply; with all other versions only with external pilot supply"	

Cable with M12 8 pin straight connector, female

For power supply, analog command signal and PreSet



Mod.
CS-LF08HB-H200
CS-LF08HB-H500
CS-LF08HC-G200
CS-LF08HC-G500

Cable with M12 8 pin connector, 90°, female

For power supply, analog command signal and PreSet



Mod.
CS-LR08HB-H200
CS-LR08HB-H500
CS-LR08HC-G200
CS-LR08HC-G500

Cable with M12 5 pin straight connector, female

For power supply and IO-Link command signal



Mod.
CS-LF05HB-C200
CS-LF05HB-C500
CS-LF05HB-D200
CS-LF05HB-D500

Cable with M12 5 pin connector, 90°, female

For power supply and IO-Link command signal



Mod.
CS-LR05HB-C200
CS-LR05HB-C500
CS-LR05HB-D200
CS-LR05HB-D500

Cable with M12, 12 pin connector, straight, female

For power supply and analog command signal with external sensor



Mod.
CS-LF12HC-C200
CS-LF12HC-C500
CS-LF12HC-D200
CS-LF12HC-D500

Cable with M12 12 pin connector, 90°, female

For power supply and analog command signal with external sensor



Mod.
CS-LR12HC-C200
CS-LR12HC-C500
CS-LR12HC-D200
CS-LR12HC-D500

Electrical tee box Mod. CS-AA08EC

To connect the external transducer, power supply and command signal



Mod.
CS-AA08EC

Mounting brackets for DIN-rail Mod. PCF-EN531

DIN EN 50022 (7,5mm x 35mm - width 1)
Supplied with:
2x mounting brackets
2x screws M4x6 UNI 5931
2x nuts



Mod.
PCF-EN531

Rear bracket Mod. PRE-ST

The kit includes
1x zinc-plated bracket
2x M4x55 white zinc-plated screws



Mod.
PRE-ST

Fixing kit for manifold version: PRE-M-PIN-1-2

The kit includes:
2x shaped steel pins
4x steel grub screws
1x O-Ring



Mod.
PRE-M-PIN-1-2

Fixing kit for Series MD: PRE

The kit includes:
1x bushing
1x O-Ring
2x special Ø4.5x34
white zinc-plated screws



Mod.
PRE-1/4-C
PRE-3/8-C

Fittings for external pilot supply



Mod.
6625 3-M5

USB to Micro USB cable Mod. G11W-G12W-2

For the hardware configuration of the Camozzi products



Mod.
G11W-G12W-2

Y-shaped, PRE - CX4 connection cable

Cable to connect PRE to the analog I/O modules CX and CX4. M12 8 pin (PRE) and M12 5 pin (CX input and CX output) connections.



Mod.
PRE-CS-YV
PRE-CS-YI

Proportional pressure regulator Series PME

Two sizes available: PME1 and PME2
Ports G1/8 - G1/4 - G3/8 - 1/4NPTF

CANopen



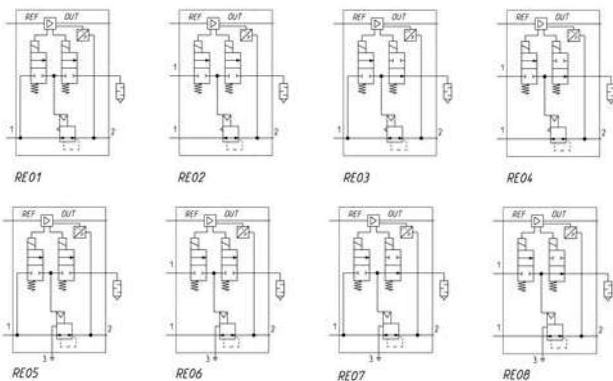
- » Manifold version
- » Integrated exhaust valve version
- » Modular with Series MD
- » Configuration APP that uses NFC technology
- » Compact and essential
- » Compatible with OXYGEN
- » Serial version in CANpen

The Series PME proportional pressure regulator is the ideal solution for industrial applications that require accurate pressure control. This new pressure regulator offers a high pneumatic performance, despite having its weight and dimensions reduced to a minimum to allow greater flexibility in its use.

Series PME is available in two sizes and versions. One version has an integrated exhaust valve that allows the system to discharge even in the absence of power. The second is a manifold version, ideal for controlling several outlets with only a single air inlet.

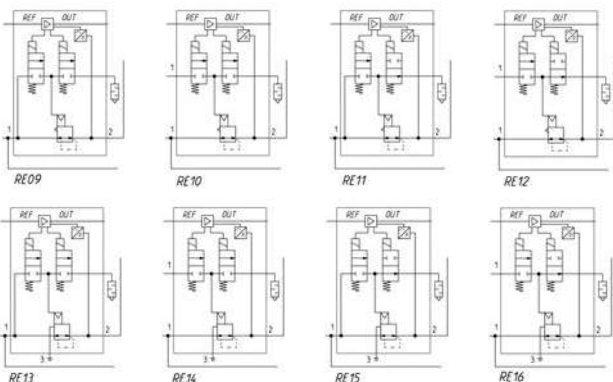
A new CANOpen serial version is also available. Ideal for controlling multiple controllers on a single fieldbus and for applications that need to operate within a wide supply voltage range (12÷24 V DC).

PNEUMATIC SYMBOLS OF SERIES PME PROPORTIONAL PRESSURE REGULATOR, size 1 and 2



- RE01 = Version with internal servo-pilot supply, two pilot valves 2/2 NC
- RE02 = Version with external servopilot supply and two pilot valves 2/2 NC
- RE03 = Version with internal servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)
- RE04 = Version with external servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)
- RE05 = Version with internal servo-pilot supply and two pilot valves 2/2 NC, exhaust conveyable
- RE06 = Version with external servopilot supply and two pilot valves 2/2 NC, exhaust conveyable
- RE07 = Version with internal servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable
- RE08 = Version with external servopilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable

PNEUMATIC SYMBOLS OF SERIES PME PROPORTIONAL PRESSURE REGULATOR, manifold version size 1 and 2



- RE09 = Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC
- RE10 = Manifold version with external servo-pilot supply and two pilot valves 2/2 NC
- RE11 = Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust
- RE12 = Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust
- RE13 = Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable
- RE14 = Manifold version with external servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable
- RE15 = Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable
- RE16 = Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable

CODING EXAMPLE

PME	1	04	-	E	D	5	I	2	E	-	00
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PME	SERIES
1	SIZE 1 = Size 1 2 = Size 2
04	CONNECTION PORT 04 = G1/4 38 = G3/8 (only size 2) M4 = G1/4 Manifold 14 = NPTF 1/4 (only size 1) N4 = 1/4 NPTF Manifold 08 = G1/8 (only size 1) M8 = G1/8 Manifold (only size 1)
E	DIAGNOSTICS E = Without WiFi No Diagnostics
D	WORKING PRESSURE F = 0-6 bar (standard for OX1 version with internal servo-pilot supply) G = 0-7 bar (OX1 versions only with external servo-pilot supply with air) D = 0-10,3 bar (OX1 versions only with external servo-pilot supply with air)
5	VALVE FUNCTION 5 = Standard, 3-way NC version. Size 1 and 2 with port 3 and pilot exhaust not conveyable. 6 = Version with integrated exhaust valve (maximum working pressure F or G). Size 1 and 2 with port 3 and pilot exhaust not conveyable. 7 = Standard, 3-way NC version. Size 1 and 2 with port 3 and pilot exhaust conveyable. 8 = Version with integrated exhaust valve (maximum working pressure F or G). Size 1 and 2 with port 3 and pilot exhaust conveyable
I	PILOT SUPPLY I = Internal E = External
2	COMMAND SIGNAL 2 = 0-10V 4 = 4-20mA C = CANopen
E	FEEDBACK DIGITAL OUTPUT SIGNAL N = without digital output (only with CANopen version) E = error (only with input signal 2, 4) P = pressure switch (only with input signal 2, 4) W = pressure switch with "window" function (only with input signal 2, 4)
00	CABLE LENGTH 00 = No cable 2F = 2mt 5 pin straight unshielded 2R = 2mt 5 pin 90° cable unshielded 5F = 5mt 5 pin straight unshielded 5R = 5mt 5 pin 90° cable unshielded 2R3 = 2 mt 90° cable, 3 wires (*) unshielded 5R3 = 2 mt 90° cable, 3 wires (*) unshielded 2FC = 2mt 5 pin straight shielded 2RC = 2mt 5 pin 90° cable shielded 5FC = 5mt 5 pin straight shielded 5RC = 5mt 5 pin 90° cable shielded
OX1	CERTIFICATES = no certificate OX1 = for use with oxygen, available in the versions "Working pressure" F; and with "Valve Function" 7; 8.
Version suitable to be used with oxygen. With a working pressure of Max 6 Bar, available both with internal and external pilot supply; with all other versions only with external pilot supply.	

(*) in the cable versions with 3 wires, only pins 1 (24 VDC), 4 (GND) and 3 (IN +) are available. On the other hand, pin 5 (Dout) is not available.

Cable with M12 5 pin connector, straight, female

For power supply and command signal



Mod.
CS-LF05HB-C200
CS-LF05HB-C500
CS-LF05HB-D200
CS-LF05HB-D500

Cable with M12 5 pin connector, 90°, female

For power supply and command signal



Mod.
CS-LR05HB-C200
CS-LR05HB-C500
CS-LR05HB-D200
CS-LR05HB-D500
CS-LR03HB-C200
CS-LR03HB-C500

Mounting brackets for DIN-rail PME

DIN EN 50022 (7,5mm x 35mm - width 1)
Supplied with:
2x mounting brackets
2x screws M4x6 UNI 5931
2x nuts



Mod.
PCF-EN531

Rear bracket Mod. PME

The kit includes
1x zinc-plated bracket
2x M4x55 white zinc-plated screws



Mod.
PRE-ST

Fixing kit for manifold version: PME

The kit includes:
2x shaped steel pins
4x steel grub screws
1x O-Ring



Mod.
PRE-M-PIN-1-2

Kit to fix PME on Series MD

The kit includes:
1x bushing
1x O-Ring
2x special Ø4.5x34 white zinc-plated screws



Mod.
PRE-1/4-C
PRE-3/8-C

Fittings for external pilot supply

Mod.
6625 3-M5

Straight female M12, 5 pin connector for Bus-In CANopen

Mod.
CS-LF05HC

Angular 90°, female M12, 5 pin connector for Bus-In CANopen

Mod.
CS-LR05HC

CANopen data line tee

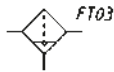
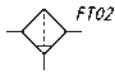
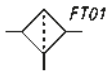
Mod.
CS-AA05EC

Filters Series MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

Bowl with technopolymer cover and bayonet-type mounting



FT01 = filter with direct G1/8 exhaust
FT02 = filter with semi-automatic manual drain
FT03 = filter with automatic/depressuring drain



FT05 = filter with direct G1/8 exhaust and visual blockage indicator
FT06 = filter with semi-automatic manual drain and visual blockage indicator
FT07 = filter with automatic/depressuring drain and visual blockage indicator

CODING EXAMPLE

MX	2	-	1/2	-	F	0	0	1	-	LH
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MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
1/2	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
F	FILTER
0	FILTERING ELEMENT 0 = 25 µm (standard) 1 = 5 µm
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain (standard - only for polymer bowl) 3 = automatic drain 5 = depressuring drain, protected (only for polymer bowl) 8 = without drain, with port G1/8
1	VISUAL BLOCKAGE INDICATOR = not present 1 = present
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

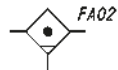
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Coalescing filters Series MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

Bowl with technopolymer cover and bayonet-type mounting



FA01 = coalescing filter without drain with port G1/8
 FA02 = coalescing filter with semi-automatic manual drain
 FA03 = coalescing filter with automatic or depressuring drain



FA04 = coalescing filter without drain, with port G1/8 and visual blockage indicator
 FA05 = coalescing filter with semi-automatic manual drain and visual blockage indicator
 FA06 = coalescing filter with automatic or depressuring drain and visual blockage indicator

CODING EXAMPLE

MX	2	-	1/2	-	FC	0	0	1	-	LH
-----------	----------	----------	------------	----------	-----------	----------	----------	----------	----------	-----------

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
1/2	PORTS 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
FC	COALESCING FILTER
0	FILTERING ELEMENT 0 = 0,01 µm (standard) 1 = 1 µm
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain (standard - only for polymer bowl) 3 = automatic drain 5 = depressuring drain, protected (only for polymer bowl) 8 = without drain, with port G1/8
1	VISUAL BLOCKAGE INDICATOR = not present 1 = present
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

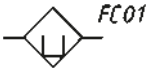
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Activated carbon filters Series MX

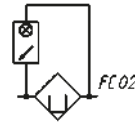
MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

Bowl with technopolymer cover and bayonet-type mounting



FC01 = activated carbon filter



FC02 = activated carbon filter with visual blockage indicator

CODING EXAMPLE

MX	2	-	1/2	-	FCA	1	-	LH
-----------	----------	---	------------	---	------------	----------	---	-----------

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
1/2	PORT 1/2 = G1/2 3/4 = G3/4 1 = G1
FCA	ACTIVATED CARBON FILTER
1	VISUAL BLOCKAGE INDICATOR = not present 1 = present
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

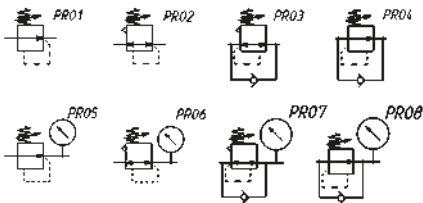
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Pressure regulators Series MX

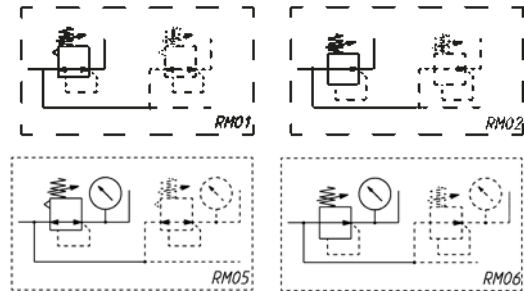
MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Manifold ports: G1/2 (MX2 only)

Modular - Available with built-in pressure gauges or ports for gauges



- PR01 = regulator without relieving
- PR02 = regulator with relieving
- PR03 = regulator with relieving and by-pass valve
- PR04 = regulator without relieving with by-pass valve
- PR05 = regulator without relieving and with pressure gauge
- PR06 = regulator with relieving and pressure gauge
- PR07 = regulator with relieving, by-pass valve and pressure gauge
- PR08 = reg. without reliev. with by-pass valve and pressure gauge



- RM01 = Manifold reg. with relieving and without pressure gauge
- RM05 = Manifold reg. with relieving and pressure gauge
- RM02 = Manifold reg. without relieving or pressure gauge
- RM06 = Manifold reg. without relieving and with pressure gauge

CODING EXAMPLE

MX	2	-	3/8	-	R	0	0	4	-	LH
-----------	----------	----------	------------	----------	----------	----------	----------	----------	----------	-----------

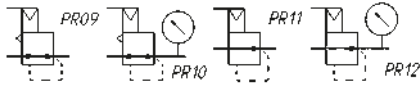
MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
3/8	PORTS 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
R	TYPER OF REGULATOR R = pressure regulator M = Manifold pressure regulator (MX2 - G1/2 only)
0	OPERATING PRESSURE (1 bar = 14,5 psi) 0 = 0.5 ÷ 10 bar (standard) 4 = 0.5 ÷ 4 bar 7 = 0.5 ÷ 7 bar (MX2 only)
0	DESIGN TYPE 0 = relieving (standard) 1 = without relieving 2 = relieving, with by-pass valve (only regulator) 3 = without relieving, with by-pass valve (only regulator)
4	PRESSURE GAUGE 0 = without pressure gauge (with threaded port for gauges) 2 = with built-in pressure gauge 0-6 and working pressure 0.5 ÷ 4 bar 3 = with built-in pressure gauge 0-10 and working pressure 0.5 ÷ 7 bar (MX2 only) 4 = with built-in pressure gauge 0-12 and working pressure 0.5 ÷ 10 bar (standard)
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Pneumatic pilot operated pressure regulators Series MX

Ports: G3/8, G1/2, G3/4

Modular - Available with built-in pressure gauges or ports for gauges



PR09 = reg. with relieving
PR10 = regulator with relieving and pressure gauge
PR11 = regulator without relieving
PR12 = regulator without relieving and with pressure gauge

CODING EXAMPLE

MX 2 - 1/2 - R CP 0 0 4 - LH

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4
1/2	PORTS 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4
R	TYPER OF REGULATOR R = pressure regulator
CP	TYPE OF COMMAND/PILOT SUPPLY CP = pneumatic pilot supply
0	OPERATING PRESSURE 0 = 0.5 ÷ 10 bar
0	DESIGN TYPE 0 = relieving (standard) 1 = without relieving
4	PRESSURE GAUGE 0 = without pressure gauge (with threaded port for gauges) 4 = with built-in pressure gauge 0-12 and working pressure 0.5 ÷ 10 bar (standard)
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Lubricators Series MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

Bowl with technopolymer cover and bayonet-type mounting

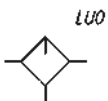


CODING EXAMPLE

MX 2 - 1/2 - L 00 - LH

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
1/2	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
L	LUBRICATOR
00	DESIGN TYPE 00 = atomized oil
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"



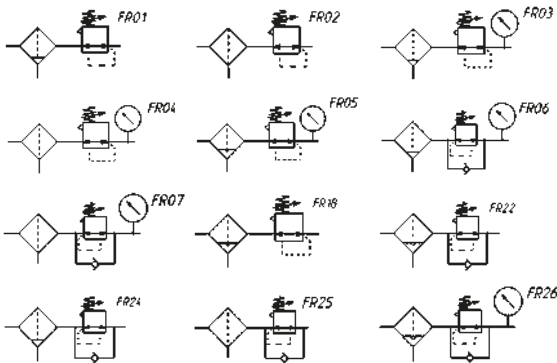
LU0 = lubricator

Filter-regulators Series MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

Bowl with technopolymer cover and bayonet-type mounting



- FR01 = filter-reg. with relieving and manual/semiautomatic drain
- FR02 = filter-reg. with relieving and direct exhaust
- FR03 = filter-reg. with relieving, pressure gauge and manual/semiautomatic drain
- FR04 = filter-reg. with relieving, pressure gauge and direct exhaust
- FR05 = filter-reg. with relieving, pressure gauge and automatic drain
- FR06 = filter-reg. with relieving, pressure gauge, manual/semiautomatic drain and by-pass valve
- FR07 = filter-reg. with rel., pres. gauge, dir. exh. and by-pass valve
- FR18 = filter-reg. with relieving and automatic drain
- FR22 = filter-reg. without relieving, with pressure gauge, automatic-depressurisation drain and by-pass valve
- FR24 = filter-reg. with rel. and man/semiaut drain and bypass valve
- FR25 = filter-reg. with relieving, direct exhaust and by-pass valve
- FR26 = filter-reg. without relieving, automatic-depressurisation drain and by-pass valve

CODING EXAMPLE

MX	2	-	1/2	-	FR	0	0	0	4	-	LH
-----------	----------	----------	------------	----------	-----------	----------	----------	----------	----------	----------	-----------

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
1/2	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
FR	FILTER-REGULATOR
0	FILTERING ELEMENT WITH DESIGN TYPE 0 = 25 µm with relieving (standard) 1 = 5 µm with relieving 2 = 25 µm without relieving (with semiautomatic-manual drain only) 3 = 5 µm without relieving (with semiautomatic-manual drain only) 4 = 25 µm with relieving and by-pass valve 5 = 5 µm with relieving and by-pass valve 6 = 25 µm without relieving, with by-pass valve 7 = 5 µm without relieving, with by-pass valve
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain (standard - only for polymer bowl) 3 = automatic drain 5 = depressuring drain, protected (only for polymer bowl) 8 = without drain, with port G1/8
0	OPERATING PRESSURE 0 = 0.5 ÷ 10 bar (standard) 4 = 0.5 ÷ 4 bar 7 = 0.5 ÷ 7 bar (MX2 only)
4	PRESSURE GAUGE 0 = without pressure gauge (with threaded port) 2 = with built-in pressure gauge 0-6 and working pressure 0.5 ÷ 4 bar 3 = with built-in pressure gauge 0-10 and working pressure 0.5 ÷ 7 bar (MX2 only) 4 = with built-in pressure gauge 0-12 and working pressure 0.5 ÷ 10 bar (standard)
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

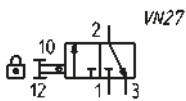
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Lockable isolation 3/2-way valves Series MX

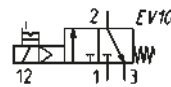
MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1

Modular

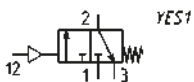
Manual, electro-pneumatic, servo-pilot and pneumatic control



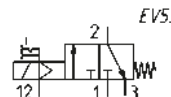
VN27 = Lockable bistable manual valve 3/2



EV10 = solenoid valve, 3/2 NC, monostable, with bistable manual override



YES1 = pneumatically operated valve, 3/2, monostable, mechanical spring



EV53 = solenoid valve, 3/2, monostable, solenoid pilot with separate air supply and bistable manual override

CODING EXAMPLE

MX	2	-	3/8	-	V	01	-	LH
-----------	----------	----------	------------	----------	----------	-----------	----------	-----------

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
3/8	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
V	3/2-WAY VALVE
01	DESIGN TYPE 01 = lockable manual control 16 = electro-pneumatic control 17 = servo-pilot control 36 = pneumatic control
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

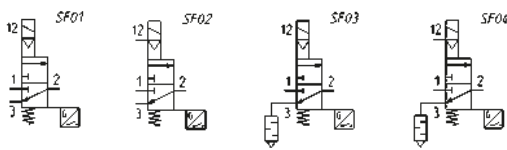
3/2-way quick exhaust safety valves

Series MX SAFEMAX

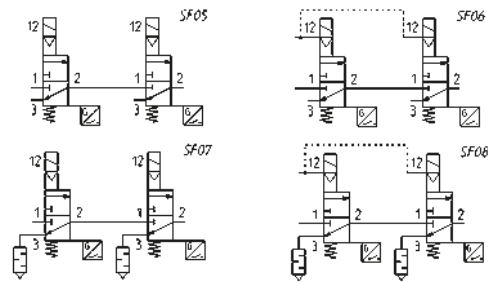
Ports: G1/2

» According to Machinery Directive 2006/42 / CE

Performance level reachable (PL)	single version: category 2, PLd double version: category 4, PLe
B10d	2.000.000 cycles



SF01 = SAFE solenoid valve, single valve, int. pilot
 SF02 = SAFE solenoid valve, single valve, ext. pilot
 SF03 = SAFE solenoid valve, single valve, int. pilot with silencer
 SF04 = SAFE solenoid valve, single valve, ext. pilot with silencer



SF05 = SAFE solenoid valve, double valve, int. pilot
 SF06 = SAFE solenoid valve, double valve, ext. pilot
 SF07 = SAFE solenoid valve, double valve, int. pilot with silencer
 SF08 = SAFE solenoid valve, double valve, ext. pilot with silencer

CODING EXAMPLE SINGLE VALVE

MX	2	-	1/2	-	V	16	2	0	A	B	-	KK	-	LH
-----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	----------	-----------	----------	-----------

MX	SERIES
2	SIZE
1/2	PORT 1/2 = G1/2
V	COMPONENT V = 3/2-way valve
16	CONSTRUCTION 16 = internal servo-pilot 17 = external servo-pilot
2	CHANNEL 2 = single
0	ACCESSORIES 0 = without silencer 1 = with silencer
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable
B	VERSION A = Atex B = UL C = CE sensor and version must comply with the same Standard / directive AB, BB - CA, DA - EC
KK	MOUNTING = without mounting accessories HH = side quick clamps and flanges JJ = side wall clamps and flanges KK = side wall brackets and flanges
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

CODING EXAMPLE DOUBLE VALVE

MX	2	-	1/2	-	V	16	4	0	A	B	-	KK	-	LH
-----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	----------	-----------	----------	-----------

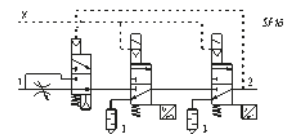
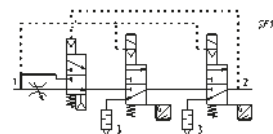
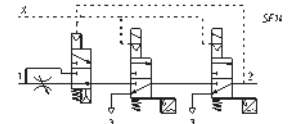
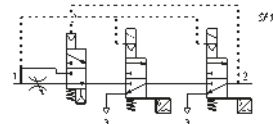
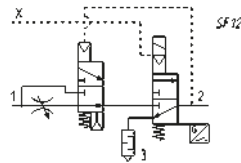
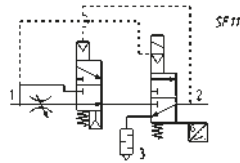
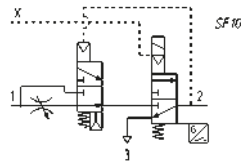
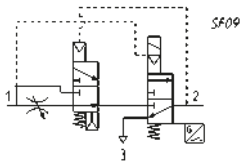
MX	SERIES
2	SIZE
1/2	PORT 1/2 = G1/2
V	COMPONENT V = 3/2-way valve
16	CONSTRUCTION 16 = internal servo-pilot 17 = external servo-pilot
4	CHANNEL 4 = double
0	ACCESSORIES 0 = without silencer 1 = with silencer
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable
B	VERSION A = Atex B = UL C = CE sensor and version must comply with the same Standard / directive AB, BB - CA, DA - EC
KK	MOUNTING = without mounting accessories Z = central wall clamp Y = central wall bracket HH = side quick clamps and flanges JJ = side wall clamps and flanges KK = side wall brackets and flanges
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

3/2-way quick exhaust safety valves with soft start Series MX SAFEMAX

Ports: G1/2

» According to Machinery Directive 2006/42 / CE

Performance level reachable (PL)	single version: category 2, PLd	double version: category 4, PLe
B10d	2.000.000 cycles	



SF09 = SAFE solenoid valve, single valve, int. pilot with soft start valve
 SF10 = SAFE solenoid valve, single valve, ext. pilot with soft start valve
 SF11 =SAFE solenoid valve, single valve, int. pilot with silencer and soft start valve
 SF12 = SAFE solenoid valve, single valve, ext. pilot with silencer and soft start valve

SF13 = SAFE solenoid valve, double valve, int. pilot with soft start valve
 SF14 = SAFE solenoid valve, double valve, ext. pilot with soft start valve
 SF15 =SAFE solenoid valve, double valve, int. pilot with silencer and soft start valve
 SF16 = SAFE solenoid valve, double valve, ext. pilot with silencer and soft start valve

CODING EXAMPLE SINGLE VALVE

MX	2	-	1/2	-	V	18	2	0	A	B	-	KK	-	LH
-----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	----------	-----------	----------	-----------

MX	SERIES
2	SIZE
1/2	PORT 1/2 = G1/2
V	COMPONENT V = 3/2-way valve
18	CONSTRUCTION 18 = internal servo-pilot with soft start valve 19 = external servo-pilot with soft start valve
2	CHANNEL 2 = single
0	ACCESSORIES 0 = without silencer 1 = with silencer
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable
B	VERSION A = Atex B = UL C = CE sensor and version must comply with the same Standard / directive AB, BB - CA, DA - EC
KK	MOUNTING = without mounting accessories Z = central wall clamps Y = central wall brackets HH = side quick clamps and flanges JJ = side wall clamps and flanges KK = side wall brackets and flanges
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

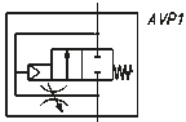
CODING EXAMPLE DOUBLE VALVE

MX	2	-	1/2	-	V	18	4	0	A	B	-	KK	-	LH
-----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	----------	-----------	----------	-----------

MX	SERIES
2	SIZE
1/2	PORT 1/2 = G1/2
V	COMPONENT V = 3/2-way valve
18	CONSTRUCTION 18 = internal servo-pilot with soft start valve 19 = external servo-pilot with soft start valve
4	CHANNEL 4 = double
0	ACCESSORIES 0 = without silencer 1 = with silencer
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable
B	VERSION A = Atex B = UL C = CE sensor and version must comply with the same Standard / directive AB, BB - CA, DA - EC
KK	MOUNTING = without mounting accessories Z = central wall clamps Y = central wall brackets HH = side quick clamps and flanges JJ = side wall clamps and flanges KK = side wall brackets and flanges
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

Soft start valves Series MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1
Modular



AVP1 = soft start valve

CODING EXAMPLE

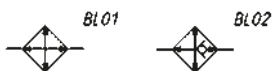
MX	2	-	3/8	-	AV	-	LH
-----------	----------	---	------------	---	-----------	---	-----------

MX	SERIES
2	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1
3/8	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1
AV	SOFT START VALVE
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Take-off blocks Series MX

MX2 port: G1/2 - MX3 port: G1
Modular



BL01 = take-off block
BL02 = take-off block with VNR

CODING EXAMPLE

MX	2	-	1/2	-	B	00	-	LH
-----------	----------	---	------------	---	----------	-----------	---	-----------

MX	SERIES
2	SIZE 2 = G1/2 3 = G1
1/2	PORT 2 = G1/2 3 = G1
B	TAKE-OFF BLOCK
00	DESIGN TYPE 00 = without no return valve (standard) 01 = with no return valve 02 = without no return valve, with double O-ring seat
LH	FLOW DIRECTION = from left to right (standard) LH = from right to left

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Accessories for Series MX

Rapid clamp kit Mod. MX2-... and MX3...

The kit MX2-X is supplied with:
1 rapid clamp, 1 O-ring OR 3125 **,
2 exagonal nuts M5, 2 screws M5x69.

The kit MX2-Z is supplied with:
1 rapid clamp, 1 O-ring OR 3125 **,
1 exagonal nut M5, 1 screw M5x69,
1 screw M5x85 for wall fixing.
* it can be ordered separately (cod. 160-39-11/19)

The kit MX3-X is supplied with:
1 rapid clamp, 1 O-ring OR 38X2,8 **,
2 square nuts M6, 2 screws M6x75.

The kit MX3-Z is supplied with:
1 rapid clamp, 1 O-ring OR 38X2,8 **,
1 square nut M6, 1 screw M6x75,
1 screw M6x90 for wall fixing.
** it can be ordered separately (OR 38X2,8 NBR)

Materials: technopolymer clamp, NBR O-ring,
zinc-plated steel nuts and screws.

Mod.
MX2-X
MX2-Z
MX3-X
MX3-Z



See the positioning
scheme in the section
"Series MX assembled FRL"

Rapid clamp kit with wall fixing brackets - size 2

The kit MX2-Y is supplied with:
1 wall rapid clamp, 1 O-ring OR 3125 **,
2 exagonal nuts, 2 screws M5x69.
** it can be separately ordered (cod. 160-39-11/19)

Materials: technopolymer clamp, NBR O-ring,
zincplated steel nuts and screws.



See the positioning
scheme in the section
"Series MX assembled FRL"

Mod.
MX2-Y

Rapid clamp kit with wall fixing brackets - size 3

The kit MX3-Y is supplied with:
1 wall rapid clamp, 1 O-ring 38X2,8 **,
2 square nuts M6, 2 screws M6x75
** it can be also separately ordered (OR 38X2,8 NBR)

Materials: technopolymer clamp, NBR O-ring,
zinc-plated steel nuts and screws.



See the positioning
scheme in the section
"Series MX assembled FRL"

Mod.
MMX3-Y

Terminal flanges (IN/OUT)

The kit is supplied with:
- 1 flange INLET side
- 1 flange OUTLET side

Materials: painted aluminium flanges.



Mod.
MX2-3/8-FL
MX2-1/2-FL
MX2-3/4-FL
MX3-3/4-FL
MX3-1-FL

Fixing bracket for regulators

The kit is supplied with 1 zinc-plated steel bracket



Mod.
MX2-S
MX3-S

Rapid clamps kit + flanges

Mod.
MX2-1/2-HH
MX2-1/2-JJ
MX2-3/4-HH
MX2-3/4-JJ
MX2-1/2-JJ
MX2-3/4-JJ
MX3-3/4-HH
MX3-1-HH
MX3-3/4-JJ
MX3-1-JJ



Rapid clamps kit with wall fixing brackets + flanges

Mod.
MX2-3/8-KK
MX2-1/2-KK
MX2-3/4-KK
MX3-3/4-KK
MX3-1-KK



Block for pressure gauge fixing

The kit is supplied with:
1 block
1 grain
2 screws
1 seal



Mod.
MX2-R26/1-P
MX3-R26/1-P

MX built-in pressure gauge

The kit is supplied with:
1 pressure gauge
1 seal
2 screws

Mod.
MX3-R30/W-P
MX3-R31/W-P
MX3-R32/W-P
MX3-R33/W-P



O-ring for assembling

Mod.
160-39-11/19
OR 38X2,8 NBR



Assembled FRL Series MX

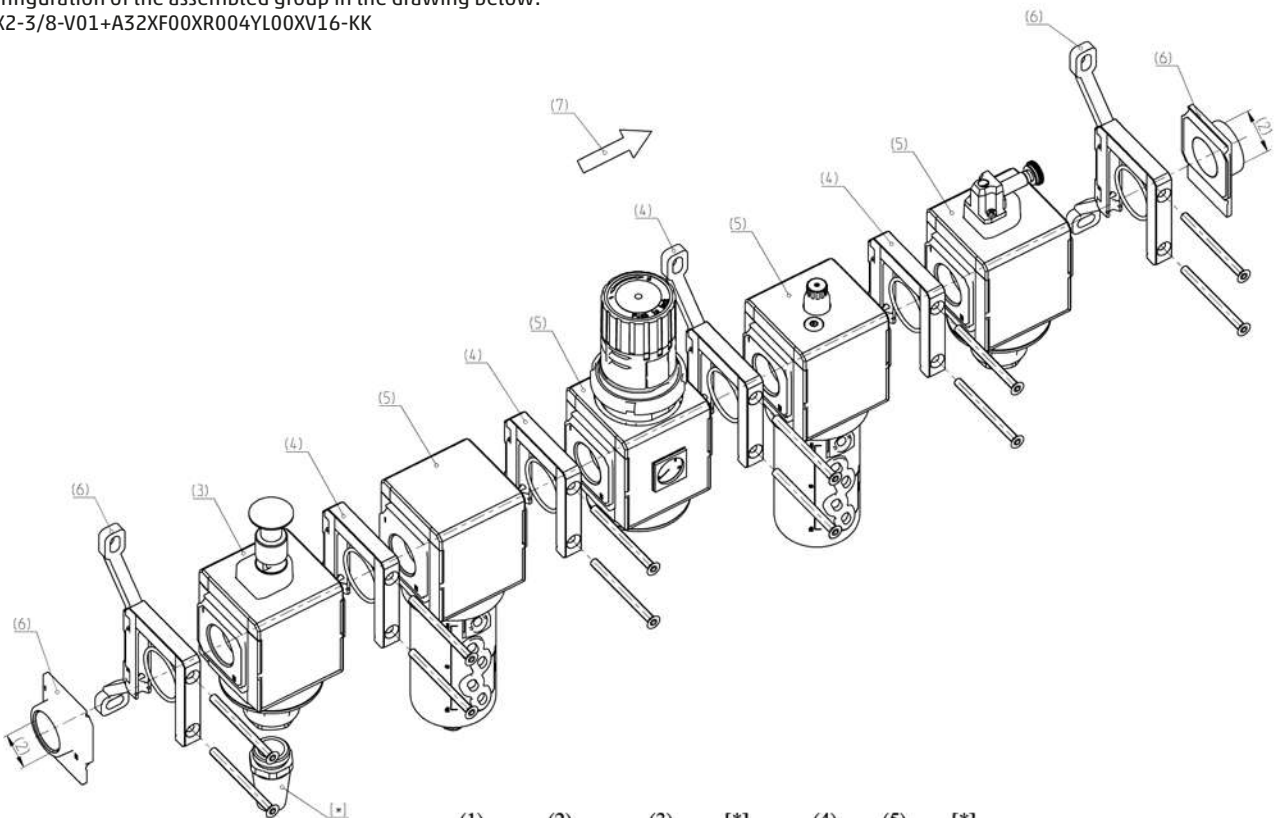
MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1
 Assembly through rapid clamps



CONFIGURATION OF ASSEMBLED GROUPS SERIES MX

TO CONFIGURE THE ASSEMBLED GROUPS SERIES MX, USE THE HERE BELOW EXAMPLE AND THE RELATED LEGEND ON THE FOLLOWING PAGE.

Configuration of the assembled group in the drawing below:
 MX2-3/8-V01+A32X F00 R004 Y L00 X V16 KK



	(1)	(2)	(3)	[*]	(4)	(5)	[*]
MX	2	3/8	V01	+A32	X	F00	
n _x					X	R004	
					Y	L00	

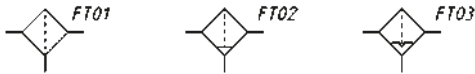
			(6)	[**]	(7)
	X	V16		KK	

CONFIGURATOR OF ASSEMBLED GROUPS SERIES MX

MX	2	-	3/8	-	V01	X	F00	-	KK	-	LH
MX	SERIES										
2	(1)	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1									
-											
3/8	(2)	IN / OUT THREADS 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1									
-											
V01	(3)	MODULE + [*] (to configure the modules, see the single components pages): F... = Filter FC... = Coalescing filter FCA... = Activated carbons filter R... = Pressure regulator L... = Lubricator FR... = Filter-Regulator V... = Lockable isolation valve AV... = Soft start valve B... = Take-off block (MX2: G1/2 only - MX3: G1 only)									
	[*]	The following ACCESSORIES can be added after every single module:									
		REGULATOR AND FILTER-REGULATOR MX2 +A56 = M053-P06 (Pressure gauge) +A57 = M053-P10 (Pressure gauge) +A58 = M063-P12 (Pressure gauge)				REGULATOR AND FILTER-REGULATOR MX3 +A60 = M063-P06 (Pressure gauge) +A61 = M063-P12 (Pressure gauge)					
		LOCKABLE ISOLATION VALVE MX2 +A30 = 2901 1/2" (Silencier) +A31 = 2921 1/2" (Silencier) +A32 = 2931 1/2" (Silencier) +A35 = 2938 1/2" (Silencier)				LOCKABLE ISOLATION VALVE MX3 +A34 = 2901 3/4" (Silencier) +A35 = 2921 3/4" (Silencier) +A36 = 2931 3/4" (Silencier)					
		SOFT START VALVE +A00 = PM11-NA (Pressure switch, normally open) +A01 = PM11-NC (Pressure switch, normally closed)									
		TAKE-OFF BLOCK MX2 +A08 = PM11-NA (normally open pressure switch) with fitting for fixing to the module +A09 = PM11-NC (normally closed pressure switch) with fitting for fixing to the module +A03 = PM11-SC with fitting for fixing to the module Example: MX2-3/8-V01+A32XF00-KK-LH				TAKE-OFF BLOCK MX3 +A06 = PM11-NA (normally open pressure switch) with fitting for fixing to the module +A07 = PM11-NC (normally closed pressure switch) with fitting for fixing to the module +A02 = PM11-SC with fitting for fixing to the module Example: MX3-3/4-V01+A36XF00-KK-LH					
X	(4)	MODULES CONNECTION X = Rapid clamp kit Z = Rapid clamp kit with wall fixing screw Y = Rapid clamp kit with wall fixing brackets									
F00	(5) + [*]	see MODULE (3)									
-											
KK	(6)	TERMINAL CONNECTIONS + [**] = no terminal connection HH = n° 1 rapid clamp kit with flanges (IN / OUT) JJ = n° 1 rapid clamp kit with wall fixing screws + flanges (IN / OUT) KK = n° 1 rapid clamp kit with wall fixing brackets + flanges (IN / OUT)									
	[**]	WALL CONNECTION REGULATOR and FILTER-REGULATOR S = Bracket (only with clamps mod. X o HH) S2=Smaller bracket (only for MX2) Codes examples: MX3-1-R..XV..-S; MX3-1-R..XV..-HSH; MX2-1/2-R..XV..-HS2H									
-											
LH	(7)	FLOW DIRECTION = from left to right (standard) LH = from right to left									
	(4) + (5) + [*]	REPEATABLE COMBINATION for a "n" number of times									

Filters Series MC

Ports G1/4, G3/8 and G1/2
Modular
Metal bowl and bayonet-type mounting



FT01 = filter without drain with threaded port
FT02 = filter with semiautomatic manual drain
FT03 = filter with automatic drain

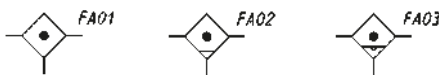
CODING EXAMPLE

MC	2	02	-	F	0	0
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
F	FILTER
0	FILTERING ELEMENT 0 = 25µm (standard) 1 = 5µm
0	DRAINING OF CONDENSATE 0 = normal - semiautomatic (standard) 3 = automatic drain (only for G3/8 and G1/2) 4 = depressurisation (only G1/4) 5 = depressurisation, protected 8 = no drain, port 1/8

Coalescing filters Series MC

Ports G1/4, G3/8 and G1/2
Modular
Metal bowl and bayonet-type mounting



FA01 = coalescing filter without drain with threaded port
FA02 = coalescing filter with semi-automatic manual drain
FA03 = coalescing filter with automatic drain

CODING EXAMPLE

MC	2	02	-	F	B	0
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
F	FILTER
B	FILTERING ELEMENT B = 0,01µm
0	DRAINING OF CONDENSATE 0 = manual - semi-automatic 3 = automatic (only for G3/8 and G1/2) 4 = depressurisation (only G1/4) 5 = depressurisation, protected 8 = no drain, port 1/8

Activated carbon filters Series MC

Ports: G1/4, G3/8 and G1/2
Modular
Metal bowl and bayonet-type mounting



FC01 = Absorption function without bowl hole

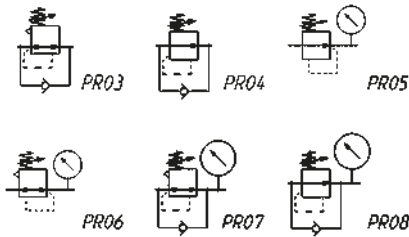
CODING EXAMPLE

MC	2	02	-	F	CA
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
F	FILTER
CA	CA = Activated carbon

Pressure regulators Series MC

Ports G1/4, G3/8 and G1/2
Modular



- PR03 = Regulator with relieving and by-pass valve
- PR04 = Regulator without relieving and with by-pass
- PR05 = Regulator without relieving and with pressure gauge
- PR06 = Regulator with relieving and pressure gauge
- PR07 = Regulator with relieving, by-pass valve and pressure gauge
- PR08 = Regulator without relieving with by-pass valve and pressure gauge

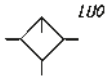
CODING EXAMPLE

MC	2	02	-	R	T	0	2	-	VS	-	■	-	●
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
R	REGULATOR
T	WORKING PRESSURE 0 = 0.5 ÷ 10 bar (standard) 1 = 0.5 ÷ 4 bar 2 = 0.5 ÷ 2 bar (only G1/4) 7 = 0.5 ÷ 7 bar (only G1/4) T = calibrated* B = locked*
0	CONSTRUCTION 0 = self-relieving (standard) 1 = non-relieving 5 = precise relieving
2	PRESSURE GAUGE ** = without pressure gauge (standard) 1 = with pressure gauge 0-2.5, with working pressure 0.5 ÷ 2 bar 2 = with pressure gauge 0-6, with working pressure 0.5 ÷ 4 bar 3 = with pressure gauge 0-10, with working pressure 0.5 ÷ 7 bar 4 = with pressure gauge 0-12, with working pressure 0.5 ÷ 10 bar
VS	REGULATION TYPE = without by-pass valve (standard) VS = with by-pass valve (solo G1/4)
<p>** NOTE: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE PORTS ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "●"</p> <p>INLET PRESSURE ■ = enter the SUPPLY pressure value</p> <p>OUTLET PRESSURE ● = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator</p> <p>Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: MC104-MT03-6.3-4.5</p> <p>** the pressure gauges are supplied disassembly for size 1 pressure gauge mod. M043-P. for size 2 pressure gauge mod. M053-P.</p>	

Lubricators Series MC

Ports G1/4, G3/8 and G1/2
Modular
with metal bowl and bayonet-type mounting



LU0 = Lubricator

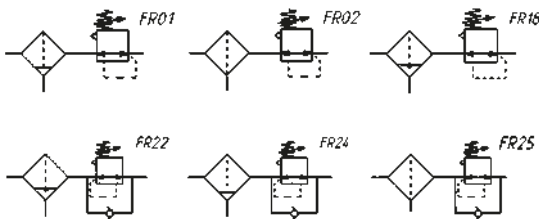
CODING EXAMPLE

MC	2	02	-	L	00
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M	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
L	LUBRICATOR
00	DESIGN TYPE 00 = atomized oil

Filter-regulators Series MC

Ports G1/4, G3/8 and G1/2
Modular
Metal bowl and bayonet-type mounting



- FR01 = filter-reg. with relieving and manual/semiautomatic drain
- FR02 = filter-reg. with relieving and direct exhaust
- FR18 = filter-reg. with relieving and automatic drain
- FR22 = filter-reg. without relieving, with pressure gauge, automatic-depressurisation drain and by-pass valve
- FR24 = filter-reg. with relieving and manual/semiautomatic drain and bypass valve
- FR25 = filter-reg. with relieving, direct exhaust and by-pass valve



CODING EXAMPLE

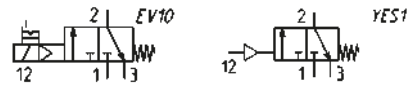
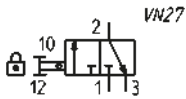
MC	2	02	-	D	0	0	2	-	4	-	VS
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
D	FILTER-REGULATOR
0	FILTERING ELEMENT 0 = 25µm (standard) 1 = 5µm
0	DRAINING OF CONDENSATE 0 = manual semiautomatic, self-relieving 1 = manual semiautomatic, non relieving 3 = automatic, self-relieving (only for G3/8 and G1/2) 4 = depressurisation, self-relieving (only G1/4) 5 = depressurisation, protected, self-relieving 8 = no drain, port G1/8, self-relieving
2	PRESSURE GAUGE ** = without pressure gauge (standard) 1 = with pressure gauge 0-2.5, with working pressure 0.5 ÷ 2 bar 2 = with pressure gauge 0-6, with working pressure 0.5 ÷ 4 bar 3 = with pressure gauge 0-10, with working pressure 0.5 ÷ 7 bar 4 = with pressure gauge 0-12, with working pressure 0.5 ÷ 10 bar
4	WORKING PRESSURE = 0.5 ÷ 10 2 = 0.5 ÷ 2 (only G1/4) 4 = 0.5 ÷ 4 7 = 0.5 ÷ 7 (only G1/4)
VS	REGULATION TYPE = without by-pass valve (standard) VS = with by-pass valve (only G1/4)
** the pressure gauges are supplied disassembly for size 1 pressure gauge mod. M043-P. for size 2 pressure gauge mod. M053-P.	

Lockable isolation 3/2-way valves Series MC

Electropneumatic, pneumatic and manual version
Ports G1/4, G3/8 and G1/2
Modular

Actuating force at 6 bar :
- MC104-V01 = 29N
- MC238-V01 = 31N
- MC202-V01 = 31N



EV10 = solenoid valve, 3/2 NC, monostable, with bistable manual override
YES1 = pneumatically operated valve, 3/2, monostable, mechanical spring

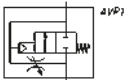
CODING EXAMPLE

MC	2	02	-	V	16
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
V	3/2-WAY VALVE
16	DESIGN TYPE 16 = electropneumatic 36 = pneumatic 01 = padlock valve (manual command)

Soft start valves Series MC

Ports G1/4, G3/8 and G1/2
Modular



AVP1 = Soft start valve

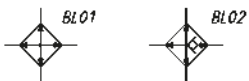
CODING EXAMPLE

MC	2	02	-	AV
-----------	----------	-----------	----------	-----------

MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2
AV	AV = SOFT START VALVE

Take-off blocks Series MC

Ports G1/4 and G1/2
Modular



BL01 = take-off block
BL02 = take-off block with VNR

CODING EXAMPLE

MC	2	-	B	-	VNR
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MC	SERIES
2	SIZE 1 = G1/4 2 = G1/2
B	TAKE OFF BLOCK
VNR	VERSION = standard VNR = with no return valve

Accessories for Series MC

Terminal flanges (kit A)

The kit MC104-FL is supplied with: 1x left flange; 1x right flange; 4x screws M4x14; 2x O-Ring 2068.
Each of the kits MC202-FL and MC238-FL is supplied with: 1x left flange; 1x right flange; 4x screws M5x14; 2x O-Ring 3100.
Materials: painted aluminium flanges, zinc-plated steel screws and NBR O-ring.

Mod.
MC104-FL
MC238-F
MC202-FL L



Mounting bracket for (kit B)

Mounting bracket for terminals 1/4, 3/8, 1/2.

The kit MC104-ST is supplied with:
- 2x terminal brackets
- 4x screws M5x10
Materials: zinc-plated steel brackets and screws.

Mod.
MC104-ST

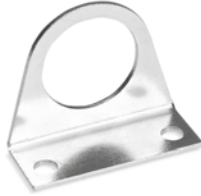


Mounting bracket Mod. C114-ST

For regulators and filter-regulators (G1/4 - G1/8)

The kit is supplied with:
1x zinc-plated steel bracket.

Mod.
C114-ST



Mounting bracket Mod. C114-ST/1

For regulators and filter-regulators (G1/4 - G1/8)

The kit is supplied with 1 zinc-plated steel bracket.

Mod.
C114-ST/1



Mounting bracket Mod. C114-ST/2

For regulators and filter-regulators (G1/4 - G1/8)

The kit is supplied with 1 zinc-plated steel bracket.

Mod.
C114-ST/2



Mounting bracket Mod. C238-ST/1

For MC238 and MC202

The kit is supplied with:
1 bracket; 2 screws M5X65
Materials: zinc-plated steel bracket and screws.

Mod.
C238-ST/1



Fixing bracket Mod. MX2-S

For regulators Mod. MC238 and MC202

The kit is supplied with 1 zinc-plated steel bracket

Mod.
MX2-S



Tie-rods for assembling (kit C)

The kit MC1-TMF is supplied with:
2 male/female tie-rods; 1 O-ring 2068.
The kit MC2-TMF is supplied with:
2 male/female tie-rods; 1 O-ring 3100.
Materials: nickel-plated steel tie-rods and NBR O-ring.

Mod.
MC1-TMF
MC2-TMF



Tie-rods for assembling (kit D)

The kit MC1-TFF is supplied with 2 female tie-rods.
The kit MC2-TFF is supplied with 2 female tie-rods.
Materials: nickel-plated steel tie-rods.

Mod.
MC1-TFF
MC2-TFF



Screws for assembling (kit E)

The kit MC1-VM is supplied with:
2 male screws; 1 O-ring 2068.
The kit MC2-VM is supplied with:
2 male screws; 1 O-ring 3100
Materials: zinc-plated steel screws and NBR O-ring.

Mod.
MC1-VM
MC2-VM



Screws for assembling (kit F)

The kit is supplied with: 2 male screws; 2 female screws;
1 O-ring (OR 2068 for MC1-VMF; OR 3100 for MC2-VMF).
Materials: zinc-plated steel male screws, nickel-plated steel female screws and NBR O-ring.

Mod.
MC1-VMF
MC2-VMF



Screws (kit G) to assemble 2 bodies type "M"

The kit MC1-VMD is supplied with:
4 screws M4X10; 4 spacers; 2 O-ring 2068.
The kit MC2-VMD is supplied with:
4 screws M5X12; 4 spacers; 2 O-ring 3100.
Materials: zinc-plated steel screws, brass spacers and NBR O-ring.

Mod.
MC1-VMD
MC2-VMD



O-ring for assembling

Mod.
458-33/1
80-26-11/4T



Assembled FRL Series MC

Ports G1/4, G3/8 and G1/2



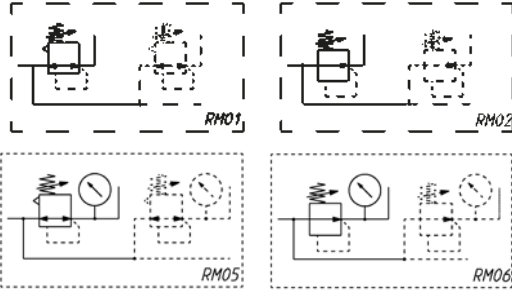
CODING EXAMPLE

MC	2	02	-	C	-	5	-	FL
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MC	SERIES
2	SIZE 1 = G1/4 2 = G3/8 - G1/2
02	PORT 04 = G1/4 38 = G3/8 02 = G1/2
C	ASSEMBLY GROUP C = D + L E = V01 + D + L FRL = F + R + L GN = D + L + V16 + AV HNA = V01 + D + L + V16 + AV + PRESS NO HNC = V01 + D + L + V16 + AV + PRESS NC N = V01 + D PN = D + V16 + AV QN = V01 + D + V16 + AV TN = V01 + D + L + V16 + AV U = F13 + FB3 (only for 3/8 - 1/2) ZNA = V01 + D + V16 + AV + PRESS NO ZNC = V01 + D + V16 + AV + PRESS NC
5	FILTERING ELEMENT 5 = 5 µm (standard) 25 = 25 µm (upon request)
FL	VERSION FL = with terminal flanges (without brackets)
<p>LEGEND</p> <p>D = Filter-regulator 0.5-10 bar, semi-automatic-manual drain with relieving, filtering element 5 µm or 25 µm L = Lubricator V01 = 3/2-way manually operated valve F = Filter 5 µm or 25 µm R = Regulator 0.5-10 bar with relieving V16 = 3/2-way electro-pneumatically operated valve AV = Soft start valve PRESS NO = Pressure switch, Normally Open PRESS NC = Pressure switch, Normally Closed F13 = Filter 5 µm with automatic drain FB3 = Coalescing filter 0.01 µm with automatic drain</p>	

Manifold pressure regulators Series MC

Ports G1/4
Modular



RM01 = Manifold regulator with relieving and without pressure gauge
 RM02 = Manifold regulator with relieving and pressure gauge
 RM05 = Manifold regulator without relieving and pressure gauge
 RM06 = Manifold regulator without relieving and with pressure gauge



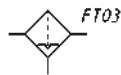
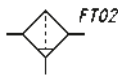
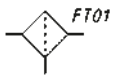
CODING EXAMPLE

MC	1	04	-	M	T	0	2	-	■	-	●
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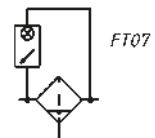
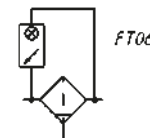
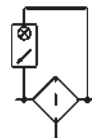
MC	SERIES
1	SIZE 1 = G1/4
04	PORT 04 = G1/4
M	MANIFOLD REGULATOR
T	OPERATING PRESSURE 0 = 0.5 ÷ 10 bar (standard) 1 = 0.5 ÷ 4 bar 2 = 0.5 ÷ 2 bar 7 = 0.5 ÷ 7 bar
0	CONSTRUCTION 0 = self-relieving (standard) 1 = non-relieving 5 = precise relieving
2	PRESSURE GAUGE = without pressure gauge (standard) 1 = with pressure gauge 0-2.5 with working pressure 0.5 ÷ 2 bar 2 = with pressure gauge 0-6 with working pressure 0.5 ÷ 4 bar 3 = with pressure gauge 0-10 with working pressure 0.5 ÷ 7 bar 4 = with pressure gauge 0-12 with working pressure 0.5 ÷ 10 bar T = calibrated* B = locked*
<p>** NOTE: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE PORTS ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "●"</p> <p>INLET PRESSURE ■ = enter the SUPPLY pressure value</p> <p>OUTLET PRESSURE ● = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator</p> <p>Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: MC104-MT03-6.3-4.5</p> <p>** the pressure gauges are supplied disassembly for size 1 pressure gauge mod. M043-P. for size 2 pressure gauge mod. M053-P.</p>	

Filters Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm.
 Modular assembly
 Bowl with technopolymer cover and bayonet-type mounting



FT01 = filter without drain with threaded port
 FT02 = filter with semiautomatic manual drain
 FT03 = filter with automatic drain



FT05 = filter with direct G1/8 exhaust and visual blockage indicator
 FT06 = filter with semi-automatic manual drain and visual blockage indicator
 FT07 = filter with automatic/depressuring drain and visual blockage indicator

CODING EXAMPLE

MD	1	-	F	0	0	0	-	1/8
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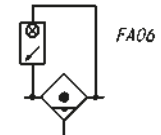
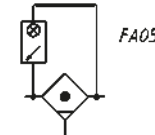
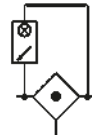
MD	SERIES
1	DIMENSION 1 = 42 mm
F	FILTER
0	FILTERING ELEMENT 0 = 25 µm 1 = 5 µm
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain 3 = automatic drain 5 = protected depressurisation 8 = direct G1/8 exhaust
0	VISUAL BLOCKAGE INDICATOR 0 = not present 1 = present
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-F000-1/4-10

Coalescing filters Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm.
Modular assembly
Bowl with technopolymer cover and bayonet-type mounting



FA01 = coalescing filter with direct G1/8 exhaust
FA02 = coalescing filter with semi-automatic manual drain
FA03 = coalescing filter with automatic/depressuring drain



FA04 = coalescing filter with direct G1/8 exhaust and visual blockage indicator
FA05 = coalescing filter with semi-automatic manual drain and visual blockage indicator
FA06 = coalescing filter with automatic/depressuring drain and visual blockage indicator

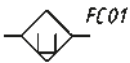
CODING EXAMPLE

MD	1	-	FC	0	0	0	-	1/8
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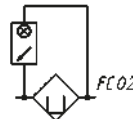
MD	SERIES
1	DIMENSION 1 = 42 mm
FC	COALESCING FILTER
0	FILTERING ELEMENT 0 = 0,01 µm 1 = 1 µm
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain 3 = automatic drain 5 = protected depressurisation 8 = direct G1/8 exhaust
0	VISUAL BLOCKAGE INDICATOR 0 = not present 1 = present
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-FC000-1/4-10

Activated carbon filters Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm.
 Modular assembly
 Bowl with technopolymer cover and bayonet-type mounting



FC01 = activated carbon filter



FC02 = activated carbon filter with visual blockage indicator

CODING EXAMPLE

MD	1	-	FCA	0	-	1/8
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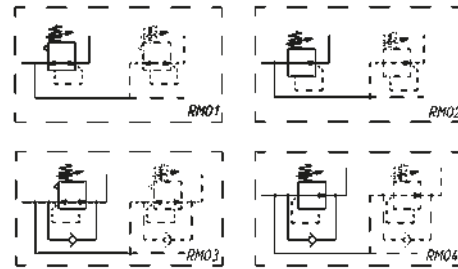
MD	SERIES
1	DIMENSION 1 = 42 mm
FCA	ACTIVATED CARBON FILTER
0	VISUAL BLOCKAGE INDICATOR 0 = not present 1 = present
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-FCA1-1/4-10

Pressure regulators Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
Versions: single, combined with other functions, Manifold



PR01 = regulator without relieving
PR02 = regulator with relieving
PR03 = regulator with relieving and by-pass valve
PR04 = regulator without relieving and with by-pass valve



RM01 = Manifold regulator with relieving
RM02 = Manifold regulator without relieving
RM03 = Manifold regulator with relieving and by-pass valve
RM04 = Manifold regulator without relieving, with by-pass valve

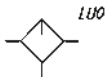
CODING EXAMPLE

MD	1	-	R	T	0	0	-	1/4	-	■	-	●
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MD	SERIES
1	SIZE 1 = 42 mm
R	TYPE OF REGULATOR R = pressure regulator - M = Manifold pressure regulator
T	OPERATING PRESSURE (1 bar = 14,5 psi) 0 = 0.5 ÷ 10 bar - 2 = 0.5 ÷ 2 bar - 4 = 0.5 ÷ 4 bar - 7 = 0.5 ÷ 7 bar - T = calibrated ** - B = locked **
0	DESIGN TYPE 0 = with relieving - 1 = without relieving - 2 = with relieving and by-pass valve (only for R regulator) - 3 = without relieving, with by-pass valve (only for R regulator)
0	PRESSURE GAUGE 0 = without pressure gauge (with 1/8 port)
1/4	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-R020-1/4-10
** NOTE: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE PORTS ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "●"	
INLET PRESSURE ■ = enter the SUPPLY pressure value	
OUTLET PRESSURE ● = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator	
Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: MD1-RT00-1/4-6.3-4.5	

Lubricators Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8)
or integrated with super-rapid fitting for tube with \varnothing 6, 8 and 10 mm.
Modular assembly
Bowl with technopolymer cover and bayonet-type mounting



LU0 = Lubricator

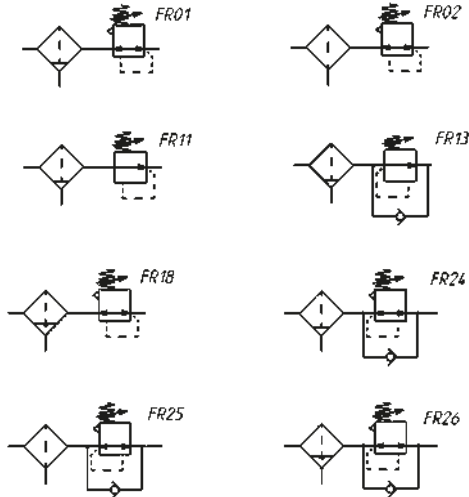
CODING EXAMPLE

MD	1	-	L	0	0	-	1/8
-----------	----------	---	----------	----------	----------	---	------------

MD	SERIES
1	DIMENSION 1 = 42 mm
L	LUBRICATOR
00	DESIGN TYPE 00 = oil mist with refill valve 10 = oil mist without refill valve
1/8	PORTS (IN - OUT)* = without ports 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube \varnothing 6 8 = tube \varnothing 8 10 = tube \varnothing 10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-L00-1/4-1/8

Pressure filter-regulators Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8)
or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
Modular assembly
Bowl with technopolymer cover and bayonet-type mounting



- FR01 = filter-regulator with relieving and semi-automatic manual drain
- FR02 = filter-regulator with relieving and direct G1/8 exhaust
- FR11 = filter-regulator without relieving, with semi-automatic manual drain
- FR13 = filter-regulator without relieving, with by-pass valve and semi-automatic manual drain
- FR18 = filter-regulator with relieving and automatic/depressuring drain
- FR24 = filter-regulator with relieving, by-pass valve and semi-automatic manual drain
- FR25 = filter-regulator with relieving, by-pass valve and direct G1/8 exhaust
- FR26 = filter-regulator with relieving, by-pass valve and automatic/depressuring drain

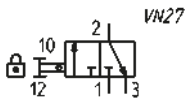
CODING EXAMPLE

MD	1	-	FR	0	0	0	0	-	1/8
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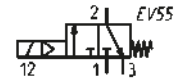
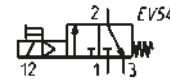
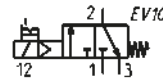
MD	SERIES
1	DIMENSION 1 = 42 mm
FR	FILTER-REGULATOR
0	FILTERING ELEMENT 0 = 25 µm with relieving 1 = 5 µm with relieving 2 = 25 µm without relieving * 3 = 5 µm without relieving * 4 = 25 µm with relieving and by-pass valve 5 = 5 µm with relieving and by-pass valve 6 = 25 µm without relieving, with by-pass valve * 7 = 5 µm without relieving, with by-pass valve * * this option is available with semiautomatic-manual drain only
0	DRAINING OF CONDENSATE 0 = semiautomatic-manual drain 3 = automatic drain 5 = protected depressurisation 8 = direct G1/8 exhaust
0	OPERATING PRESSURE (1 bar = 14,5 psi) 0 = 0.5 ÷ 10 bar 2 = 0.5 ÷ 2 bar 4 = 0.5 ÷ 4 bar 7 = 0.5 ÷ 7 bar
0	PRESSURE GAUGE 0 = without pressure gauge (with 1/8 port)
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10 * NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-FR0000-1/4-1/8

Lockable isolation 3/2-way valves Series MD

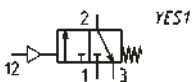
Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8)
 or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
 Modular
 Manual, electro-pneumatic, servo-pilot and pneumatic control



VN27 = Lockable bistable manual valve 3/2



EV10 = solenoid valve, 3/2 NC, monostable, with bistable manual override
 EV54 = solenoid valve, 3/2 NC, monostable with manual override
 EV55 = solenoid valve, 3/2 NC, monostable with manual override



YES1 = pneumatically operated valve, 3/2, monostable, mechanical spring

CODING EXAMPLE

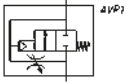
MD	1	-	V	01	-	1/8
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MD	SERIES					
1	DIMENSION 1 = 42 mm					
V	3/2-WAY VALVE					
01	DESIGN TYPE 01 = lockable manual control 16 = electro-pneumatic control, Push & Turn manual override 16IL = electro-pneumatic control, bistable manual override, lever type			16IM = electro-pneumatic control, monostable manual override 16IT = electro-pneumatic control without manual override 36 = pneumatic control		
1/8	PORTS (IN - OUT) * = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10					

* NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated.
 Example: MD1-V01-1/4-1/8

Soft start valves Series MD

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
Modular assembly



AVP1 = Soft start valve

CODING EXAMPLE

MD	1	-	AV	-	1/8
-----------	----------	---	-----------	---	------------

MD	SERIES
1	DIMENSION 1 = 42 mm
AV	SOFT START VALVE
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10
* NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-AV-1/4-1/8	

Take-off blocks Series MD

Module with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm (5 outlets)
Intermediate junction cartridge (3 outlets)
Intermediate junction cartridge with non-return valve



BL01 = take-off block

CODING EXAMPLE

MD	1	-	B	00	-	1/8
-----------	----------	---	----------	-----------	---	------------

MD	SERIES
1	DIMENSION 1 = 42 mm
B	TAKE-OFF BLOCK
00	DESIGN TYPE 00 = 5 outlets 01 = 3 outlets (only without cartridges) 02 = Increased inlet
1/8	PORTS (IN - OUT)* = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10
* NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-B00-3/8-10	

Accessories for Series MD

Take-Off block (3 outlets) Mod. MD1-B01

The kit is supplied with:
1x intermediate joining cartridge with derivation
4x zinc-plated white special screws Ø4,5 TC/RC



Mod.
MD1-B01

Intermediate joining cartridge with non return valve Mod. MD1-VNR

The kit is supplied with:
1x intermediate joining cartridge with non return valve
4x zinc-plated white special screws Ø4,5 TC/RC



Mod.
MD1-VNR

Threaded cartridges Mod. MD1-A-...

The kit is supplied with:
2x nickel-plated threaded cartridges
4x special white zinc-plated screws Ø4,5 TC/RC



Mod.
MD1-A-1/8
MD1-A-1/4
MD1-A-3/8

Integrated cartridges with super-rapid fitting Mod. MD1-A-...

2x integrated nickel-plated cartridges with superrapid fitting
4x special white zinc-plated screws Ø4,5 TC/RC



Mod.
MD1-A-6
MD1-A-8
MD1-A-10

Intermediate joining cartridge Mod. MD1-C

The kit is supplied with:
1x intermediate joining cartridge
4x special white zinc-plated screws Ø4,5 TC/RC



Mod.
MD1-C

Screws for wall mounting Mod. MD1-D

The kit is supplied with:
2x white zinc-plated screws M4x50



Mod.
MD1-D

Rear bracket Mod. MD1-ST/1

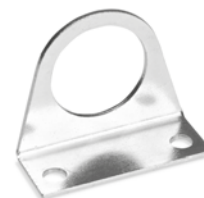
The kit is supplied with:
1x zinc-plated bracket
2x white zinc-plated screws M4x50



Mod.
MD1-ST/1

Mounting bracket Mod. C114-ST

For regulators and filter-regulators (G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST

Mounting bracket Mod. C114-ST/1

For regulators and filter-regulators (G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/1

Mounting bracket Mod. C114-ST/2

For regulators and filter-regulators (G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/2

Assembled FRL Series MD

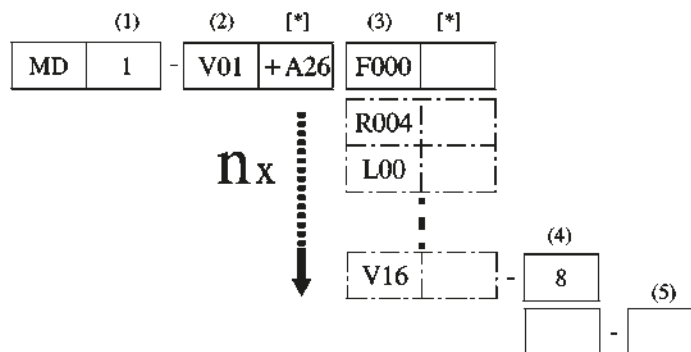
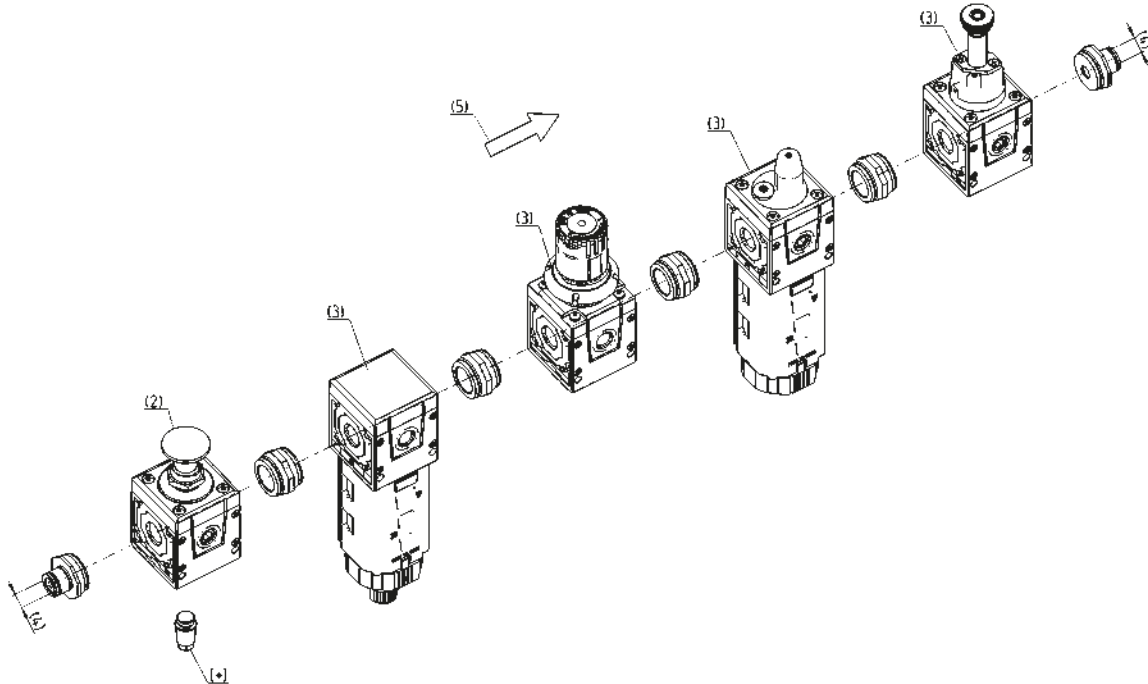
Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
Modular assembly



CONFIGURATION OF SERIES MD ASSEMBLED GROUPS

TO CONFIGURE THE SERIES MD ASSEMBLED GROUPS, USE THE HERE BELOW EXAMPLE AND THE RELATED LEGEND ON THE FOLLOWING PAGE.

Configuration of the assembled group in the drawing below:
MD1-V01+A26F000R004L00V16-8



CONFIGURATOR OF SERIES MD ASSEMBLED GROUPS

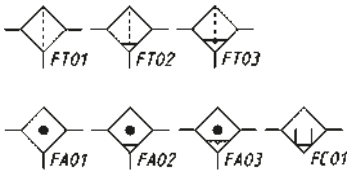
MD	1	-	V01	F000	R000	L00	V16	-	8	-	LH
MD	SERIES										
1	(1)	DIMENSION 1 = 42 mm									
-											
V01	(2)	MODULE + [*] F... = Filter FC... = Coalescing filter FCA... = Activated carbons filter R... = Pressure regulator L... = Lubricator FR... = Filter-Regulator V... = Lockable isolation valve AV... = Soft start valve B... = Take-off block									
	[*]	The following ACCESSORIES can be added after every single module: REGULATOR, FILTER-REGULATOR AND MANIFOLD REGULATOR +A01 = M043-P04 (pressure gauge) +A02 = M043-P06 (pressure gauge) +A03 = M043-P10 (pressure gauge) +A04 = M043-P12 (pressure gauge) +A05 = SWCN-P10-P3-2 (pressure switch) +A06 = SWCN-P10-P4-2 (pressure switch) +A07 = SWCN-P10-P4-M (pressure switch) +A08 = PG010-PB-1/8 (pressure gauge) LOCKABLE ISOLATION VALVE ...V01 / V16 / V36 +A25 = 2901 1/8 (silencier) +A26 = 2921 1/8 (silencier) - recommended choice +A27 = 2931 1/8 (silencier) +A28 = 2938 1/8 (silencier) +A01 = M043-P04 (pressure gauge) +A02 = M043-P06 (pressure gauge) +A03 = M043-P10 (pressure gauge) +A04 = M043-P12 (pressure gauge) +A05 = SWCN-P10-P3-2 (pressure switch) +A06 = SWCN-P10-P4-2 (pressure switch) +A07 = SWCN-P10-P4-M (pressure switch) +A08 = PG010-PB-1/8 (pressure gauge) SOFT START VALVE AND 5-WAY TAKE-OFF BLOCK +A15 = PM11-NC (pressure switch mounted on top) +A16 = PM11-NA (pressure switch mounted on top) +A17 = PM681-1 (pressure switch mounted on top) +A18 = PM681-3 (pressure switch mounted on top) +A19 = PM11-SC + S2520 1/8-1/4 (pressure switch with fitting mounted on top) +A05 = SWCN-P10-P3-2 (front mounted pressure switch) +A06 = SWCN-P10-P4-2 (front mounted pressure switch) +A07 = SWCN-P10-P4-M (front mounted pressure switch) +A08 = PG010-PB-1/8 (front mounted pressure switch) INTERMEDIATE JOINING CARTRIDGE WITH DERIVATION (MD1-B) +A17 = PM681-1 (pressure switch mounted on top) +A18 = PM681-3 (pressure switch mounted on top)									
F000	(3)	see MODULE (2) + [*]									
R000	(3)	see MODULE (2) + [*]									
L00	(3)	see MODULE (2) + [*]									
V16	(3)	see MODULE (2) + [*]									
-											
8	(4)	PORTS (IN - OUT)** = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10									
-											
LH	(5)	FLOW DIRECTION = from left to right (standard) LH = from right to left									

nx = the combination "(3) + (*)" can be repeated an odd ("n") number of times

** NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-V01F000R000-3/8-8

Filters, coalescing filters and activated carbon filters Series N

Ports: G1/8, G1/4



FT01 = filter without drain with threaded port
 FT02 = filter with semiautomatic manual drain
 FT03 = filter with automatic/depression drain
 FA01 = coalescing filter without drain with threaded port
 FA02 = coalescing filter with semi-automatic manual drain
 FA03 = coalescing filter with automatic/depression drain
 FC01 = absorption function without bowl hole



CODING EXAMPLE

N	2	04	-	F	0	0	-	
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N	SERIES
2	SIZE 1 = small bowl (11 cm ³) 2 = normal bowl (28 cm ³)
04	PORTS 08 = G1/8 04 = G1/4
F	FILTER
0	FILTERING ELEMENT 0 = 25µm (standard) 1 = 5µm B = 0.01µm CA = activated carbon (without drain, only closed bowl size 2)
0	DRAINING OF CONDENSATE 0 = semi-automatic manual drain 4 = depressurisation (normal bowl only) 5 = protected depressurisation (normal bowl only) 8 = no drain, direct G1/8 exhaust 9 = closed bowl (version 0X1)
	BOWL MATERIAL = transparent PA12 (standard) TM = nickel-plated brass (only in the small size with semi-automatic manual drain or without drain, port 1/8)

Pressure regulators Series N

Ports G1/8, G1/4



PR01 = regulator without relieving
 PR02 = regulator with relieving

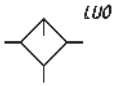
CODING EXAMPLE

N	12	04	-	R	T	0	-	■	-	●
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N	SERIES
12	SIZE 12
04	PORTS 08 = G1/8 04 = G1/4
R	REGULATOR
T	OPERATING PRESSURE 0 = 0.5 ÷ 10 bar (standard) 1 = 0.5 ÷ 4 bar 2 = 0.5 ÷ 2 bar 7 = 0.5 ÷ 7 bar T = calibrated * B = locked *
0	DESIGN TYPE 0 = self-relieving 1 = non-relieving
<p>* NOTE: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE DESIGN TYPE ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "●"</p> <p>INLET PRESSURE ■ = enter the SUPPLY pressure value</p> <p>OUTLET PRESSURE ● = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator</p> <p>Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: N1204-RT0-6.3-4.5</p>	

Lubricators Series N

Ports G1/8, G1/4



LU0 = Lubricator

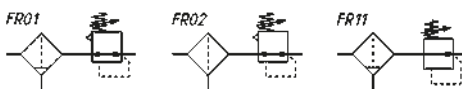
CODING EXAMPLE

N	2	04	-	L	00	-	
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N	SERIES
2	SIZE 1 = small bowl (26 cm ³) 2 = normal bowl (37 cm ³)
04	PORTS 08 = G1/8 04 = G1/4
L	LUBRICATOR
00	DESIGN TYPE 00 = atomized oil
	BOWL MATERIAL = transparent PA12 (standard) TM = nickel-plated brass (only in the small size)

Filter-regulators Series N

Ports G1/8, G1/4



FR01 = filter-regulator with relieving and manual drain
FR02 = FR with relieving and without drain
FR11 = FR with manual drain and without relieving

CODING EXAMPLE

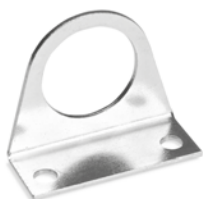
N	2	04	-	D	0	0	-	4	-
---	---	----	---	---	---	---	---	---	---

N	SERIES
2	SIZE 1 = small bowl (11 cm ³) 2 = normal bowl (28 cm ³)
04	PORTS 08 = G1/8 04 = G1/4
D	FILTER-REGULATOR
0	FILTERING ELEMENT 0 = 25µm (standard) (not available for OX1 version) 1 = 5µm
0	DRAINING OF CONDENSATE AND DESIGN TYPE 0 = semi-automatic manual drain with self-relieving 1 = semi-automatic manual drain without relieving 4 = depressurisation with self-relieving (with normal bowl only) 5 = protected depressurisation with self-relieving (with normal bowl only) 8 = no drain (direct port 1/8), with self-relieving 9 = closed bowl (only for OX1 version)
4	OPERATING PRESSURE = 0.5 ÷ 10 bar (standard) 2 = 0.5 ÷ 2 bar 4 = 0.5 ÷ 4 bar 7 = 0.5 ÷ 7 bar
	BOWL MATERIAL = transparent PA12 (standard) TM = nickel-plated brass (only in the small size with semi-automatic manual drain or without drain)
	OPTIONS OX1 = for oxygen (non-volatile residue less than 550 mg/m ²)

Accessories for Series N

Mounting bracket Mod. C114-ST

For regulators and filter-regulators (G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST

Mounting bracket Mod. C114-ST/1

For regulators and filter-regulators
(G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/1

Mounting bracket Mod. C114-ST/2

For regulators and filter-regulators
(G1/4 - G1/8)
The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/2

Mounting bracket Mod. N204-ST


For filters and lubricators
The kit is supplied with:
1 bracket
2 screws M5X6
Materials: zinc-plated steel bracket and screws



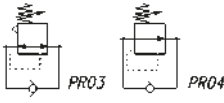
Mod.
N204-ST

Micro pressure regulators Series CLR


Ports G1/4, G1/8
With banjo stem with or without relieving
Available with or without banjo



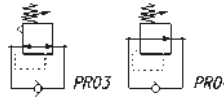
Mod.
CLR 1/4-8
CLR 1/8-4
CLR 1/8-6
CLR 1/8-8
CLR 1/4-6



PR03 = Regulator with relieving and by-pass valve
PR04 = Regulator without relieving and with by-pass valve



Mod.
CLR 1/8
CLR 1/4



PR03 = Regulator with relieving and by-pass valve
PR04 = Regulator without relieving and with by-pass valve



Mod.
CLR 1/8-1/8D



PR03 = Regulator with relieving and by-pass valve
PR04 = Regulator without relieving and with by-pass valve



Mod.
CLR 1/8-1/8L



PR03 = Regulator with relieving and by-pass valve
PR04 = Regulator without relieving and with by-pass valve

CODING EXAMPLE

CL	R		1/8	-	01	-	4
----	---	--	-----	---	----	---	---

CL	SERIES
R	REGULATOR
1/8	PORTS 1/8 = G1/8 1/4 = G1/4
01	DESIGN TYPE = with relieving 01 = without relieving
4	TUBE = without banjo 4 = single technopolymer banjo with tube diameter Ø4 mm (only CLR 1/8) 6 = single technopolymer banjo with tube diameter Ø6 mm 8 = single technopolymer banjo with tube diameter Ø8 mm 1/8L = single metal banjo with thread G1/8 (only CLR 1/8) 1/8D = double metal banjo with double thread G1/8 (only CLR 1/8)

Pressure microregulators Series TC

For applications with oxygen, without relieving
Ports: cartridge construction, G1/8 and 1/8 NPTF



- Mod.
- TC1-R11-C-V-OX1
 - TC1-R11-C-V-OX2
 - TC1-R21-C-V-OX1
 - TC1-R21-C-V-OX2
 - TC1-R31-C-V-OX1
 - TC1-R31-C-V-OX2
 - TC1-R41-C-V-OX1
 - TC1-R41-C-V-OX2



PR01 = regulator without relieving



- Mod.
- TC1-R11-^{1/8}-V-OX1
 - TC1-R11-^{1/8}-V-OX2
 - TC1-R21-^{1/8}-V-OX1
 - TC1-R21-^{1/8}-V-OX2
 - TC1-R31-^{1/8}-V-OX1
 - TC1-R31-^{1/8}-V-OX2
 - TC1-R41-^{1/8}-V-OX1
 - TC1-R41-^{1/8}-V-OX2



PR01 = regulator without relieving

CODING EXAMPLE

TC	1	-	R	3	1	-	C	-	V	-	OX2
----	---	---	---	---	---	---	---	---	---	---	-----

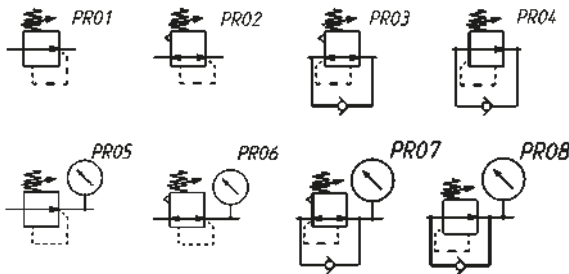
TC	SERIES
1	SIZE
R	REGULATOR
3	WORKING PRESSURE 1 = 0.03 ÷ 0.5 bar 2 = 0.1 ÷ 2 bar 3 = 0.15 ÷ 3 bar 4 = 0.2 ÷ 4 bar
1	TYPE OF CONSTRUCTION 1 = without relieving
C	PORTS C = Cartridge 1/8 = G1/8 1/8TF = 1/8NPTF
V	SEALS MATERIAL V = FKM
OX2	VERSIONS OX1 = for oxygen (non-volatile residue lower than 550 mg/m ²) OX2 = for oxygen (non-volatile residue lower than 33 mg/m ²)

Pressure microregulators Series M

Ports G1/8, G1/4



Mod.
M008-R00
M004-R00
M008-R01-E-OX1
M004-R01-E-OX1



- PR01 = reg. without relieving
- PR02 = reg. with relieving
- PR03 = reg. with relieving and by-pass valve
- PR04 = reg. without relieving with by-pass valve
- PR05 = reg. without relieving with pressure gauge
- PR06 = reg. with relieving and pressure gauge
- PR07 = reg. with relieving, by-pass valve and pressure gauge
- PR08 = reg. without relieving with by-pass valve and pressure gauge

CODING EXAMPLE

M	0	04	-	R	T	0	2	-	VS	-	■	-	●
---	---	----	---	---	---	---	---	---	----	---	---	---	---

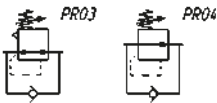
M	SERIES	
0	SIZE	
04	PORTS 08 = G1/8 04 = G1/4	
R	REGULATOR	
T	OPERATING PRESSURE 0 = 0.5 ÷ 10 bar (standard) 1 = 0.5 ÷ 4 bar 2 = 0.5 ÷ 2 bar 7 = 0.5 ÷ 7 bar T = calibrated * B = locked *	
0	DESIGN TYPE 0 = self relieving 1 = non relieving 5 = relieving with precise setting	
2	PRESSURE GAUGE ** = without pressure gauge (standard) 1 = with pressure gauge 0-2.5 with working pressure 0.5 ÷ 2 bar 2 = with pressure gauge 0-6 with working pressure 0.5 ÷ 4 bar 3 = with pressure gauge 0-10 with working pressure 0.5 ÷ 7 bar 4 = with pressure gauge 0-12 with working pressure 0.5 ÷ 10 bar	** the pressure gauges are supplied disassembly mod. M043-P..
VS	REGULATION TYPE = without high relief flow (standard) VS = high relief flow	
* NOTE: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE REGULATION TYPE ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "●"		
INLET PRESSURE ■ = enter the SUPPLY pressure value		
OUTLET PRESSURE ● = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator		
Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: M04-RT0-6.3-4.5		

Pressure microregulators Series T

Ports G1/8 and G1/4



Mod.
T108-R00
T104-R00



PR03 = regulator with relieving and by-pass valve
 PR04 = regulator without relieving and with by-pass valve

CODING EXAMPLE

T	1	08	-	R	0	0	2
---	---	----	---	---	---	---	---

T	SERIES	
1	SIZE	
08	PORTS 08 = G1/8	04 = G1/4
R	REGULATOR	
0	OPERATING PRESSURE 0 = 0,5 ÷ 10 1 = 0 ÷ 4	2 = 0 ÷ 2 7 = 0 ÷ 7 (standard)
0	DESIGN TYPE 0 = self-relieving	1 = non relieving
2	MANOMETERS ** = without pressure gauge (standard) 1 = with pressure gauge 0-2,5, with working pressure 0÷2 bar 2 = with pressure gauge 0-6, with working pressure 0÷4 bar	3 = with pressure gauge 0-10, with working pressure 0,5÷7 bar 4 = with pressure gauge 0-12, with working pressure 0,5÷10 bar

** the pressure gauges are supplied dismantling manometers mod. M043-P..

Accessories for Series M and T

Mounting bracket Mod. C114-ST

The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST

Mounting bracket Mod. C114-ST/1

The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/1

Mounting bracket Mod. C114-ST/2

The kit is supplied with:
1x zinc-plated steel bracket



Mod.
C114-ST/2

Precision regulators with manual override Series PR

Size 1 ports: G1/4

Size 2 ports: G1/4, G3/8



Mod.

PR104-M*

* to complete the code, add the OPERATING PRESSURE (see the CODING EXAMPLE)



PR02 = Regulator with relieving



Mod.

PR204-M*

PR238-M*

* to complete the code, add the OPERATING PRESSURE (see the CODING EXAMPLE)



PR02 = Regulator with relieving

CODING EXAMPLE

PR	1	04	-	M	07
PR	SERIES				
1	SIZE 1 = size 1 2 = size 2				
04	PORTS 04 = G1/4 38 = G3/8 (size 2 only)				
M	TYPE OF ADJUSTMENT M = manual				
07	OPERATING PRESSURE (1 bar = 14,5 psi) 02 = 0.05 ÷ 2 bar 04 = 0.05 ÷ 4 bar 07 = 0.05 ÷ 7 bar 00 = 0.05 ÷ 10 bar				

Pressure booster Series BPA

New

Size: 40



- » Easy and flexible installation
- » Focused pressure increase
- » Optimisation of the pneumatic circuit
- » Energy efficient

This pressure booster, with ratio of 1:2, increases outlet pressure by up to 20 bar. It operates automatically when needed to generate a constant pressure increase while its mechanical design guarantees quick and easy installation, minimises heat generation and improves machine safety.

Two versions are available, with or without an integrated regulator that allows to adjust the desired outlet pressure and enables the efficient management of energy consumption. It offers a compact, functional design with rapid filling times that makes

the Series BPA ideal for applications where high pressure is only needed at specific points in the pneumatic circuit such as woodworking, marble and glass processing or with testing and assembly machines.

CODING EXAMPLE

BPA	-	040	-	R1
BPA	SERIES			
040	SIZE 40			
R1	REGULATOR = without regulator R1 = with regulator (P.IN 2-8bar - P.OUT 0-10bar) R2 = with regulator (P.IN 2-10bar - P.OUT 0-16bar)			

Pressure Regulator

P.IN MAX = 16bar
P.OUT MAX = 10bar

PR02 = Regulator with relieving

Mod.
MD1-R000

High pressure regulator

P.IN MAX = 20bar
P.OUT MAX = 16bar

PR02 = Multiplier with relieving

Mod.
MD1-R900

BPA fixing kit with MD Series

The kit includes:
2x bushing with OR
4x special Ø4.5x34 white zinc-plated screws
1x plug with seal

Mod.
BPA-1/4-C

Silencers Series 2901

Mod.
2901 1/4-17

Silencers Series 2931

Mod.
2931 1/4

Silencers Series 2928

Operating temperature:
- 40 / + 80 °C

Mod.
2928 1/4

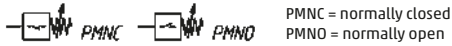
Pressure switches, Transducers, Pressure indicators

Series PM adjustable-diaphragm pressure switches

Supplied with a rubber cap providing protection class IP54.



Mod.
PM11-NC
PM11-NA
PM11-NC-OX1
PM11-NCEX
PM11-NA-OX1
PM11-NAEX



Series PM681-... - pressure switches with setting visual scale

In compliance with EN60730 standard
Protection class IP40
Electric connection: PVC cable 2 x 0.22 mm
Electric contact: Reed SPST NO
Body in anodized aluminium and threaded fitting in brass
Hysteresis: 0.8 bar max



Mod.
PM681-1
PM681-3

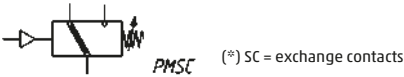


Pressure switch with exchange contacts Mod. PM11-SC

Protection class IP65
(with connector Mod. 124-830)



Mod.
PM11-SC
PM11-SCEX
PM11-SCUL

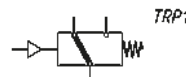


Electro-pneumatic transducer Series TRP

Series TRP electro-pneumatic transducer is particularly suitable to convert a pneumatic signal into an electrical signal. The contacts are NC (normally closed) or NO (normally open), thus making it possible to generate or eliminate current when the pneumatic signal is present. Minimum operating pressure 2,5 bar.



Mod.
TRP-8

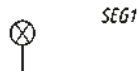


Pressure indicators Series 2950

The pressure indicator Mod. 2950-M5 is passive element (no spring, red colour). It is useful for detecting pressure manually without having to remove the connections.



Mod.
2950 M5



3-pole connector Mod. 124-830 for pressure switch Mod. PM11-SC



Mod.
124-830
124-830EX

Compact electronic pressure switches / vacuum switches

Series SWMN and SWMS compact

Ports: G1/8, M5 thread or Ø 4, 6 mm plug-in tube

Measuring range: 0 ÷ -1 bar, 0 ÷ 1 bar with analog output,
0 ÷ -1 bar, 0 ÷ 6 bar with digital PNP output



CODING EXAMPLE

SWMN	-	AP	-	T	-	2
-------------	---	-----------	---	----------	---	----------

SWMN	SERIES SWMN SWMS
AP	OUTPUT SIGNAL (SWMN) AV = analog output signal - vacuum AP = analog output signal - pressure PN = PNP output - vacuum PP = PNP output - pressure OUTPUT SIGNAL (SWMS) NO = normally open NC = normally closed
T	TYPE OF CONNECTION T = Ø 6 tube U = Ø 4 tube (only for SWMN) G = G1/8 thread M = M5 thread
2	ELECTRIC CONNECTION 2 = cable of 2 meters M = M8 3 pin connector

Electronic vacuum/pressure switches Series SWDN

With digital display
High precision, easy to use



CODING EXAMPLE

SWDN	-	V01	-	P3	-	2
-------------	---	------------	---	-----------	---	----------

SWDN	SERIES
V01	SET PRESSURE RANGE V01 = from -1 bar to 1 bar P10 = from 0 bar to 10 bar
P3	TYPE OF ELECTRIC CONNECTION P3 = 2 PNP outputs + 1 analog output 1 - 5 V DC (this version is available with 5-pole cable only) P4 = 2 PNP outputs
2	ELECTRIC CONNECTION 2 = cable of 2 meters M = M8 4 pin connector

Circular M8 4-pole connectors, Female

Protection class: IP65
Materials: PU non shielded cable



Mod.
CS-DF04EG-E200
CS-DF04EG-E500
CS-DR04EG-E200
CS-DR04EG-E500

Electronic vacuum / pressure switches

Series SWCN

With digital display
High precision, easy to use



CODING EXAMPLE

SWCN	-	V01	-	P3	-	2
-------------	---	------------	---	-----------	---	----------

SWCN	SERIES
V01	SET PRESSURE RANGE V01 = from -1 bar to 1 bar P10 = from 0 bar to 10 bar
P3	TYPE OF ELECTRIC CONNECTION P3 = 2 PNP outputs + 1 analog output 1 - 5 V DC (this version is available with 5-pole cable only) P4 = 2 PNP outputs P6 = 2 PNP outputs + 1 analog output 4-20 mA (this version is available with 5-pole cable only)
2	ELECTRIC CONNECTION 2 = cable of 2 meters M = M8 4 pin connector

Mounting bracket Mod. SWCN-B

Supplied with:

- 4 fixing screws M4x5 ISO 724 (fine pitch)
- 1 fixing bracket for surface mounting (A)
- 1 fixing bracket for wall mounting (B)



Mod.
SWCN-B

Panel mounting set Mod. SWCN-F

Supplied with:

- 1 pressure switch holder (A)
- 2 panel mounting brackets (B)



Mod.
SWCN-F

Panel mounting set + transparent cover Mod. SWCN-FP

Supplied with:

- 1 pressure switch holder
- 2 panel mounting brackets
- 1 transparent cover



Mod.
SWCN-FP

Circular M8 4-pole connectors, Female

With PU sheathing, non shielded cable.
Protection class: IP65

Mod.
CS-DF04EG-E200
CS-DF04EG-E500
CS-DR04EG-E200
CS-DR04EG-E500



Pressure gauges

Miniature pressure gauge

Supplied with a rubber cap providing protection class IP54.



Mod.
M015-P08

Pressure gauges for panel mounting

Precision class CL1,6



Mod.
M043-F04
M043-F06
M043-F10
M043-F12
M063-F12

Pressure gauges with radial connection

Precision class CL1,6



Mod.
M043-R06
M043-R12
M053-R12
M063-R12

Pressure gauges with rear connection

Precision class CL1,6



Mod.
M043-P02,5
M043-P04
M043-P06
M043-P10
M043-P12
M053-P04
M053-P06
M053-P10
M053-P12
M063-P04
M063-P06
M063-P12

Built-in pressure gauge

Precision class CL4,0
Supplied with:
1x pressure gauge
1x seal
2x screws



Mod.
MX3-R33/W-P
MX3-R31/W-P
MX3-R32/W-P
MX3-R30/W-P

Pressure gauges with rear connection and adjustable red-green coloured sector

Precision class CL1,6



Mod.
M043-P02,5-GR
M043-P04-GR
M043-P12-GR

Digital pressure gauges Series PG

Possibility of a direct mounting with rear or panel connection

Series PG digital pressure gauges - battery-powered



Mod.
PG010-PB-1/8
PG001-VB-1/8
PG010-PB-1/4
PG001-VB-1/4

Series PG digital pressure gauges - with cable



Mod.
PG010-PB-1/8-2
PG001-VB-1/8-2
PG010-PB-1/8-M
PG001-VB-1/8-M

CODING EXAMPLE

PG	010	-	P	B	-	1/8	-	2
----	-----	---	---	---	---	-----	---	---

PG	SERIES
010	BOTTOM SCALE 010 = 10 bar 001 = -1 bar
P	PRESSURE RANGE P = pressure V = vacuum
B	LIGHTING B = back light
1/8	PNEUMATIC CONNECTIONS 1/8 = G 1/8 BSPP; M5 1/4 = G 1/4 BSPP; M5 (for battery-powered version only)
2	ELECTRICAL CONNECTION (for version with cable only) 2 = with unshielded 2-pole cable of 2 m M = with cable of 150 mm and M8 4-pole connector

Mounting brackets Mod. PG-B

Supplied with:
1x bracket type A
1x bracket type B
2x screws M3x6



Mod.
PG-B

Panel mounting adapter Mod. PG-F

Supplied with:
1x adapter type A
1x adapter type B



Mod.
PG-F

Condensate drains Filtering elements

Semi-automatic manual drain; Automatic drain;
Depressurisation drain; Depressurisation drain, protected
Ports: 1/8 (without drain)



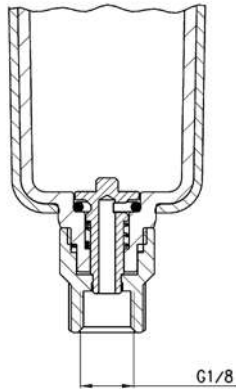
COMBINATION OF FILTERS / BOWL WITH DRAIN / FILTERING ELEMENT

* for Series MD the "bowl with drain" is supplied complete with the filtering element

Mod. filter	bowl with semi-automatic manual drain	bowl with automatic drain	bowl with depressurization drain	bowl with depressurization drain, protected	bowl without drain (1/8 port)	closed bowl	filtering element 25 µ	filtering element 5 µ	filtering element 1 µ	filtering element 0.01 µ	activated carbon
N10...-F	N1-F71				N1-F71-1/8		C104-F20/3	C104-F21/3			
N10...-D	N1-F71				N1-F71-1/8		C104-F20/3	C104-F21/3			
N10...-FB	N1-F71				N1-F71-1/8					MX1-F10	
N20...-F	N2-F71		N2-F71/2	N2-F71/1	N2-F71-1/8		C104-F20/3	C104-F21/3			
N20...-D	N2-F71		N2-F71/2	N2-F71/1	N2-F71-1/8		C104-F20/3	C104-F21/3			
N20...-FB	N2-F71		N2-F71/2	N2-F71/1	N2-F71-1/8					MX1-F10	
N20...-FCA						N2-L71					MX1-F11
MC104-F	MC1-F71		MC1-F71/2	MC1-F71/1	MC1-F71-1/8		C104-F20/3	C104-F21/3			
MC104-D	MC1-F71		MC1-F71/2	MC1-F71/1	MC1-F71-1/8		C104-F20/3	C104-F21/3			
MC104-FB	MC1-F71		MC1-F71/2	MC1-F71/1	MC1-F71-1/8					MX1-F10	
MC104-FCA						MC1-L71					MX1-F11
MC202-F	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8		C238-F11/3	C238-F12/3			
MC202-D	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8		C238-F11/3	C238-F12/3			
MC202-FB	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8					MX2-F10	
MC202-FCA						MC2-L71					MX2-F11
MC238-F	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8		C238-F11/3	C238-F12/3			
MC238-D	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8		C238-F11/3	C238-F12/3			
MC238-FB	MC2-F71	MC2-F71/3		MC2-F71/1	MC2-F71-1/8					MX2-F10	
MC238-FCA						MC2-L71					MX2-F11
MX2...-F	MX2-F2-P	MX2-F2/1-P		MX2-F2/3-P	MX2-F2/2-P		C238-F11/3	C238-F12/3			
MX2...-FR	MX2-F2-P	MX2-F2/1-P		MX2-F2/3-P	MX2-F2/2-P		C238-F11/3	C238-F12/3			
MX2...-FC	MX2-F2-P	MX2-F2/1-P		MX2-F2/3-P	MX2-F2/2-P				MX2-F9	MX2-F10	
MX2...-FCA						MX2-L2-P					MX2-F11
MX3...-F	MX3-F2-P	MX3-F2/1-P		MX3-F2/3-P	MX3-F2/2-P		MX3-F7	MX3-F8			
MX3...-FR	MX3-F2-P	MX3-F2/1-P		MX3-F2/3-P	MX3-F2/2-P		MX3-F7	MX3-F8			
MX3...-FC	MX3-F2-P	MX3-F2/1-P		MX3-F2/3-P	MX3-F2/2-P				MX3-F9	MX3-F10	
MX3...-FCA						MX3-L2-P					MX3-F11
MD1-F0..*	MD1-FSP01	MD1-FSP08		MD1-FSP03	MD1-FSP02		C104-F20/3				
MD1-F1..*	MD1-FSP04	MD1-FSP07		MD1-FSP06	MD1-FSP05			C104-F21/3			
MD1-FR0..*	MD1-FSP01	MD1-FSP08		MD1-FSP03	MD1-FSP02		C104-F20/3				
MD1-FR1..*	MD1-FSP04	MD1-FSP07		MD1-FSP06	MD1-FSP05			C104-F21/3			
MD1-FC0..*	MD1-FCSP01			MD1-FCSP03	MD1-FCSP02					MD1-F10	
MD1-FC1..*	MD1-FCSP04			MD1-FCSP06	MD1-FCSP05				MD1-F9		
MD1-FCA..*						MD1-FCASP01					MD1-F11

Semi-automatic manual drain (Type 0 and 1)

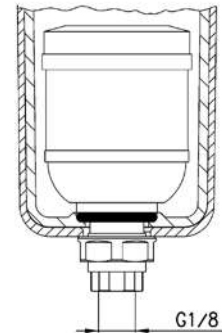
Functioning: with the operator mechanism turned clockwise, each time the pressure falls below 0.3 bar, the draining of condensate will be released; when resetting the pressure, the drain will close again. The release can also be carried out manually; when the bowl is pressurised, the operator mechanism is pushed upwards.



To avoid the discharge of condensate, the operator mechanism should be turned clockwise to completely close the drain.

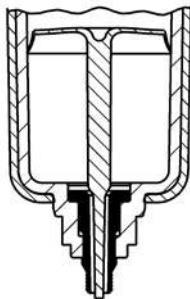
Automatic drain (Type 3)

Functioning: the presence of liquid inside the bowl raises the float, thus opening the exhaust valve.



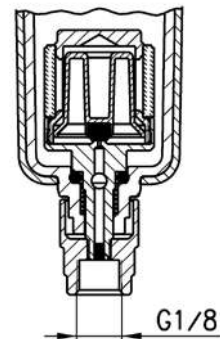
Depressurisation drain (Type 4)

Functioning: each time air is required from the inlet, a slight difference of pressure is created between the upper part and lower part of the drain that rises, thus opening the exhaust valve.



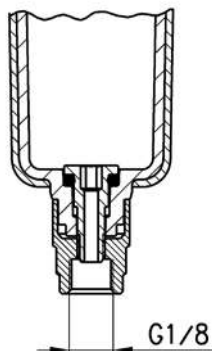
Depressurisation drain, protected (Type 5)

Solution similar to the Type 4 but requiring a $\Delta P = 1$ bar. Functioning: this version has a filtering element which prevents any impurities from clogging the exhaust hole.

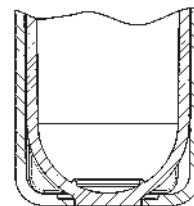


Bowl without drain (Type 8)

The solution with port G1/8 is used to assemble the items to the bowl which is realized with a through hole of $\varnothing 3$ mm and a threaded port G1/8.



Closed bowl



Brass super-rapid fittings for plastic tubes Series 6000

Tube external diameters: 3, 4, 5, 6, 8, 10, 12, 14, 16 mm

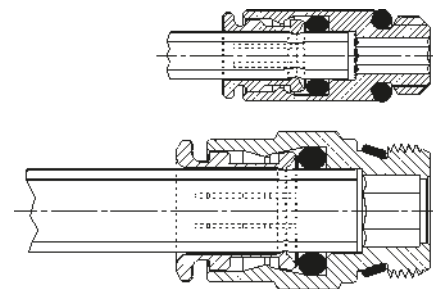
Fittings threads: metric (M3, M5, M6, M7), BSP (G1/8, G1/4, G3/8, G1/2, G3/4), BSPT (R1/8, R1/4, R3/8, R1/2)



Series 6000 super-rapid fittings have been designed with a special collet which provides an homogeneous tight on the whole surface of plastic tubes, thus ensuring high reliability and a long service life, also after connections and disconnections of the tube are repeated several times. Many types of threads are also available: metric, BSP and BSPT.

The Sprint® models are characterized by great adaptability of male threads with BSP parallel (ISO-228) female threads even in the presence of non-flat or irregular surfaces. This is possible thanks to a Teflon ring on the male thread, which guarantees a perfect seal between the two threads.

The wide range of these fittings includes the LF version ("Stop Fitting") which is equipped with a self-retaining device interrupting the air flow when the tube is disconnected and restores it when reconnected.



GENERAL DATA

Diameters	ø 4 - 5 - 6 - 8 - 10 - 12 - 14 - 16 mm Micro models: ø 3 - 4 - 6 - 8 - 10 mm
Threads	GAS conical ISO 7 (BSPT) GAS cylindrical ISO 228 (BSP); M5-M6 and other metric threads available on request; NPT on request Micro models: M3 - M5 - M7 - G1/8 - G1/4
Temperature	-20°C ÷ 80°C (see the technical data of tubing used) Micro models: -10°C ÷ 80°C (see the technical data of tubing used)
Tube to connect	Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Polyethylene (PE), hytrel Polyester
Fluid	compressed air (for other types of fluid, contact our engineers)
Materials	- standard models: body and collet in nickel-plated brass, O-Ring in NBR, thread seals in PTFE - NBR - PA - models with self-retaining device: body and collet in nickel-plated brass, poppet valve in brass, spring in stainless steel, O-Ring in NBR, thread seals in PTFE
Working pressure	- standard models: min -0,9 bar - max 16 bar (see tubing) - models with self-retaining device: 0 ÷ 16 bar

Fittings Mod. S6510

Male Connector Sprint®

Mod.	
S6510 4-1/8	S6510 10-1/4
S6510 4-1/4	S6510 10-3/8
S6510 5-1/8	S6510 10-1/2
S6510 5-1/4	S6510 12-1/4
S6510 6-1/8	S6510 12-3/8
S6510 6-1/4	S6510 12-1/2
S6510 6-3/8	S6510 14-3/8
S6510 8-1/8	S6510 14-1/2
S6510 8-1/4	S6510 16-1/2
S6510 8-3/8	S6510 16-3/4
S6510 8-1/2	



Fittings Mod. S6510...-LF

Male Connector Sprint® with self-retaining device. This version interrupts the air flow when the tube is disconnected and restores it when reconnected.

Mod.
S6510 4-1/8-LF
S6510 6-1/8-LF



Fittings Mod. 6512 Micro

Metric-BSP Male Connector

Mod.	
6512 3-M3	*
6512 3-M5	•
6512 4-M7-M	•
6512 4-1/8-M	•
6512 6-M7-M	•
6512 6-1/8-M	•
6512 8-1/8-M	•
6512 10-1/4-M	•

* = with gasket
• = with O-Ring



Fittings Mod. 6512

Metric-BSP Male Connector

Mod.	
6512 4-M5	6512 8-3/8
6512 4-M6	6512 10-1/4
6512 4-1/8	6512 10-3/8
6512 4-1/4	6512 10-1/2
6512 5-M5	6512 12-1/4
6512 6-M5	6512 12-3/8
6512 6-M6	6512 12-1/2
6512 6-1/8	6512 14-3/8
6512 6-1/4	6512 14-1/2
6512 8-1/8	6512 16-1/2
6512 8-1/4	



Fittings Mod. 6463

Metric-BSP Female Connector

Mod.
6463 4-M5
6463 4-1/8
6463 5-1/8
6463 6-1/8
6463 6-1/4
6463 8-1/8
6463 8-1/4
6463 10-1/4



Fittings Mod. S6520

Swivel Male Elbow Sprint®

Mod.	
S6520 4-1/8	S6520 10-1/4
S6520 4-1/4	S6520 10-3/8
S6520 5-1/8	S6520 10-1/2
S6520 5-1/4	S6520 12-1/4
S6520 6-1/8	S6520 12-3/8
S6520 6-1/4	S6520 12-1/2
S6520 6-3/8	S6520 14-3/8
S6520 8-1/8	S6520 14-1/2
S6520 8-1/4	
S6520 8-3/8	
S6520 8-1/2	



Fittings Mod. 6522 Micro

Metric Swivel Male Elbow

Mod.	
6522 3-M3	*
6522 3-M5	•

* = with gasket
• = with O-Ring



Fittings Mod. 6522

Metric-BSP Swivel Male Elbow

Mod.	
6522 4-M5	6522 8-3/8
6522 4-1/8	6522 10-1/4
6522 4-1/4	6522 10-3/8
6522 5-M5	6522 10-1/2
6522 6-M5	6522 12-1/4
6522 6-1/8	6522 12-3/8
6522 6-1/4	6522 12-1/2
6522 8-1/8	6522 14-3/8
6522 8-1/4	6522 14-1/2



Fittings Mod. S6500

Metric Fix Male Elbow

Mod.	
S6500 4-1/8	S6500 12-1/4
S6500 4-1/4	S6500 12-3/8
S6500 5-1/8	
S6500 5-1/4	
S6500 6-1/8	
S6500 6-1/4	
S6500 8-1/8	
S6500 8-1/4	
S6500 8-3/8	
S6500 10-1/4	
S6500 10-3/8	



Fittings Mod. 6525

Long Swivel Male Elbow Sprint®

Mod.
6525 6-1/8
6525 6-1/4
6525 8-1/8
6525 8-1/4



Fittings Mod. 6621 Micro

Complete Metric Adjustable Single Banjo

Mod.
6621 3-M3
6621 3-M5



Fitting Mod. 6501 4-M5

Metric Fix Male Elbow

Mod.
6501 4-M5



Fittings Mod. S6430

Swivel Male Tee Sprint®

Mod.	
S6430 4-1/8	S6430 12-1/4
S6430 5-1/8	S6430 12-3/8
S6430 5-1/4	S6430 12-1/2
S6430 6-1/8	S6430 14-1/2
S6430 6-1/4	
S6430 8-1/8	
S6430 8-1/4	
S6430 8-3/8	
S6430 10-1/4	
S6430 10-3/8	
S6430 10-1/2	



Fittings Mod. 6432 Micro

Metric Swivel Male Tee

Mod.	
6432 3-M3	*
6432 3-M5	•

* = with gasket
• = with O-Ring



Fittings Mod. 6432

Metric-BSP Swivel Male Tee

Mod.	
6432 4-M5	6432 8-1/4
6432 4-1/8	6432 8-3/8
6432 5-M5	6432 10-1/4
6432 6-1/8	6432 10-3/8
6432 6-1/4	6432 12-1/4
6432 8-1/8	6432 12-3/8



Fittings Mod. S6440

Lateral Swivel Male Tee Sprint®

Mod.
S6440 4-1/8
S6440 5-1/8
S6440 6-1/8
S6440 6-1/4
S6440 8-1/8
S6440 8-1/4
S6440 8-3/8
S6440 10-1/4
S6440 10-3/8
S6440 12-3/8
S6440 14-1/2



Fittings Mod. 6442 Micro

Lateral Metric Swivel Male Tee

Mod.
6442 3-M3 *
6442 3-M5 •

* = with gasket
• = with O-Ring



Fittings Mod. 6442

Lateral Metric-BSP Swivel Male Tee

Mod.
6442 4-M5
6442 4-1/8
6442 5-M5
6442 6-1/8
6442 6-1/4
6442 8-1/8
6442 8-1/4
6442 8-3/8
6442 10-1/4
6442 10-3/8



Fittings Mod. 6452 Micro

Metric Swivel Male Y

Mod.
6452 3-M3 *
6452 3-M5 •

* = with gasket
• = with O-Ring



Fittings Mod. 6451 - S6450

Mod. 6451: Metric Adjustable Male Y
Mod. S6450: Swivel Male Y Sprint®

Mod.
6451 4-M5 *
6451 6-M5 *
S6450 4-1/8
S6450 6-1/8
S6450 8-1/8
S6450 8-1/4

* = not swivel Model with gasket



Fittings Mod. 6622

Complete BSP Swivel Single Banjo

Mod.
6622 4-M5 *
6622 4-1/8
6622 6-1/8
6622 6-1/4
6622 8-1/8
6622 8-1/4
6622 10-1/4

* = not swivel Model with gasket



Fittings Mod. 6632

Complete BSP Swivel Double Banjo

Mod.
6632 4-1/8
6632 6-1/8
6632 6-1/4
6632 8-1/8
6632 8-1/4
6632 10-1/4



Fittings Mod. 6620

Double Banjo

Mod.	assembled with Mod.
6620 4-M5	SCU, SVU, SCO...
6620 4-1/8	1631, 1635, SCU, SVU, SCO...
6620 6-1/8	1631, 1635, SCU, SVU, SCO...
6620 6-1/4	1631, 1635, SCU, SVU, SCO...
6620 8-1/8	1631, 1635, SCU, SVU, SCO...
6620 8-1/4	1631, 1635, SCU, SVU, SCO...



Fittings Mod. 1631 with gaskets

01... = Single Banjo Stem
02... = Double Banjo Stem
03... = Triple Banjo Stem

Mod.
1631 01-
1631 02-
1631 03-

Complete codes available on page 335



Fittings Mod. 6610

Single Banjo

Mod.	assembled with Mod.	Mod.	assembled with Mod.
6610 4-M5	1631	6610 6-1/8	1631, 1635, SCU, SVU, SCO...
6610 4-M6	SCU, SVU, SCO...	6610 6-1/4	1631, 1635, SCU, SVU, SCO...
6610 4-1/8	1631, 1635, SCU, SVU, SCO...	6610 8-1/8	1631, 1635, SCU, SVU, SCO...
6610 5-M5	1631	6610 8-1/4	1631, 1635, SCU, SVU, SCO...
6610 5-M6	SCU, SVU, SCO...	6610 8-3/8	1631, 1635, SCU, SVU, SCO...
6610 5-1/8	1631, 1635, SCU, SVU, SCO...	6610 10-1/4	1635, SCU, SVU, SCO...
6610 6-M5	1631	6610 10-3/8	1635, SCU, SVU, SCO...
6610 6-M6	SCU, SVU, SCO...	6610 12-1/2	1635



Fittings Mod. 6811

Metric Male Adaptor Sprint®

Mod.
6811 4-M5 *
6811 4-1/8
6811 5-1/8
6811 5-1/4
6811 6-1/8
6811 6-1/4
6811 8-1/8
6811 8-1/4
6811 10-1/4
6811 10-3/8
6811 12-3/8
6811 14-1/2

* = with O-Ring



Fittings Mod. S6110

45° Male Elbow Sprint®

Mod.
S6110 6-1/8
S6110 6-1/4
S6110 8-1/8
S6110 8-1/4
S6110 8-3/8
S6110 10-1/4
S6110 10-3/8
S6110 10-1/2
S6110 12-1/4
S6110 12-3/8
S6110 12-1/2



Fittings Mod. 6590 Micro

Bulkhead Connector

Mod.
6590 3



Fittings Mod. 6590

Bulkhead Connector

Mod.
6590 4
6590 5
6590 6
6590 8
6590 10
6590 12
6590 14



Fittings Mod. 6580 Micro

Union Connector

Mod.
6580 3



Fittings Mod. 6580

Union Connector

Mod.
6580 4
6580 5
6580 6
6580 8
6580 10
6580 12
6580 14
6580 16



Fittings Mod. 6580 - Reducer

Reducer Union Connector

Mod.
6580 6-4
6580 8-6
6580 10-8
6580 12-10



Fittings Mod. 6593

BSP Female Bulkhead

Mod.
6593 6-1/8
6593 6-1/4
6593 8-1/8
6593 8-1/4
6593 10-3/8



Fittings Mod. 6550 Micro

Elbow connector

Mod.
6550 3



Fittings Mod. 6550

Elbow connector

Mod.
6550 4
6550 5
6550 6
6550 8
6550 10
6550 12
6550 14



Fittings Mod. 6540 Micro

Tee Connector

Mod.
6540 3



Fittings Mod. 6540

Tee Connector

Mod.
6540 4
6540 5
6540 6
6540 8
6540 10
6540 12
6540 14



Fittings Mod. 6600

Cross Junction

Mod.
6600 4
6600 5
6600 6
6600 8
6600 10
6600 12



Fittings Mod. 6560 Micro

Y Union

Mod.
6560 3



Fittings Mod. 6560

Y Union

Mod.
6560 4
6560 6
6560 8
6560 10



Fittings Mod. 6750

Female Plug

Mod.
6750 4
6750 6
6750 8
6750 10
6750 12



Fittings Mod. 6850

Enlarger Junction

Mod.
6850 6-4
6850 8-6



Fitting Mod. 6800 Micro

Reducer Junction

Mod.
6800 3-4



Fittings Mod. 6800

Reducer Junction

Mod.	
6800 4-5	6800 10-14
6800 4-6	6800 12-14
6800 4-8	
6800 5-6	
6800 5-8	
6800 6-8	
6800 6-10	
6800 6-12	
6800 8-10	
6800 8-12	
6800 10-12	



Fittings Mod. 6950

Junction

Mod.
6950 4
6950 6
6950 8
6950 10
6950 12
6950 14



Fittings Mod. 6555

Junction Elbow

Mod.
6555 4-4
6555 6-6
6555 8-8
6555 10-10



Fittings Mod. 6700

Cartridge

Mod.
6700 3
6700 4
6700 5
6700 6
6700 8
6700 10



Accessory Mod. 6708

Protection caps
Colour: Black
Self-extinguishing material, class V0

Mod.
6708 4
6708 5
6708 6
6708 8
6708 10
6708 12
6708 14



Accessory Mod. 6900 Micro

Plastic Male Plug

Mod.
6900 3



Accessory Mod. 6900

Plastic Male Plug

Mod.
6900 4
6900 5
6900 6
6900 8
6900 10
6900 12
6900 14



Accessory Mod. SP

Disconnecting tube set
The set includes keys to disconnect tubes with diameters between 4 and 12 mm.

Mod.
SP



Brass super-rapid fittings for Lubrication Applications Series HP6000

Tube external diameters: 4, 6 mm

Fittings threads: metric M5, M6x0,75, M6x1, M8x1, M10x1, M10x1,5, M12x1, M14x1
ISO7 (BSPT): R1/8, R1/4. ISO-228 (BSPP): G1/8, G1/4



Series HP6000 is designed with a special collet that provides a long service life for lubrication and greasing systems for industrial and transportation applications.

Thanks to its easy connection and disconnection capability, robust and compact design as well as the materials used in its construction, these quick-connect fittings are ideal for high pressures up to 150bar. The range is available with different threads (metric, ISO7 and ISO-228) and is suitable for use with rigid and semi-rigid tubes to meet different application needs.



GENERAL DATA

Temperature	- 30°C ÷ 80°C (see the technical data of tubing used)
Working pressure	0 ÷ 150 bar with oil and grease 0,9 ÷ 60 bar with air (see the technical data of tubing used) 3 ÷ 150 bar for VNR version (for upper pressure range contact our engineers)
Diameters	Ø 4 - 6 mm
Threads	M5, M6x0,75, M6x1, M8x1, M10x1, M10x1,5, M12x1, M14x1. ISO7 (BSPT): R1/8,R1/4. ISO-228 (BSPP): G1/8, G1/4
Fluid	oil and grease for lubrication, compressed air
Tube to connect	Oil and grease: PA 12 HL - PA 12 PHL Rigid metal pipe with smooth grooved metal end (tolerance of PA tubing in compliance to ISO14743) Compressed air: Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Polyethylene (PE), Polyester hytel
Materials	- standard models: body and collet in nickel-plated brass, O-Ring in NBR, thread seals in NBR - models with VNR: body and collet in nickel-plated brass, spring and ball in stainless steel, O-Ring in NBR

Fittings Mod. HP6512

Male Connector
Thread Metric parallel and BSPP ISO-228

Mod.
HP6512 4-M5
HP6512 4-M6x1
HP6512 4-M8x1
HP6512 4-M10x1
HP6512 4-M12x1
HP6512 4-1/8
HP6512 4-1/4
HP6512 6-M5
HP6512 6-M6x1
HP6512 6-M8x1
HP6512 6-M10x1
HP6512 6-M12x1
HP6512 6-1/8
HP6512 6-1/4



Fittings Mod. HP6510

Male Connector
Thread Metric tapered and BSPT ISO-7

Mod.
HP6510 4-M6x0,75
HP6510 4-M6x1
HP6510 4-M8x1
HP6510 4-M10x1
HP6510 4-1/8
HP6510 6-M6x0,75
HP6510 6-M6x1
HP6510 6-M8x1
HP6510 6-M10x1
HP6510 6-1/8



Fittings Mod. HPR6512

Male Connector
Thread Metric parallel

Mod.
HPR6512 4-M5
HPR6512 4-M6x1
HPR6512 4-M6x0,75
HPR6512 6-M5
HPR6512 6-M6x1
HPR6512 6-M6x0,75



Fittings Mod. HP6500

Fixed Male Elbow
Thread Metric tapered and BSPT ISO-7

Mod.
HP6500 4-M6x0,75
HP6500 4-M6x1
HP6500 4-M8x1
HP6500 4-M10x1
HP6500 4-M10x1,5
HP6500 4-M12x1
HP6500 4-1/8
HP6500 4-1/4
HP6500 6-M6x0,75
HP6500 6-M6x1
HP6500 6-M8x1
HP6500 6-M10x1
HP6500 6-M10x1,5
HP6500 6-M12x1
HP6500 6-1/8
HP6500 6-1/4



Fittings Mod. HP6522

Swivel Male Elbow
Thread Metric parallel and BSPP ISO-228

Mod.
HP6522 4-M5
HP6522 4-M6
HP6522 4-M6x0,75
HP6522 4-M8x1
HP6522 4-M10x1
HP6522 4-1/8
HP6522 4-1/4
HP6522 6-M5
HP6522 6-M6
HP6522 6-M6x0,75
HP6522 6-M8x1
HP6522 6-M10x1
HP6522 6-1/8
HP6522 6-1/4



Fittings Mod. HP6520

Swivel Male Elbow
Thread Metric tapered and BSPT ISO-7

Mod.
HP6520 4-M6x1
HP6520 4-M8x1
HP6520 4-M10x1
HP6520 4-M12x1
HP6520 4-1/8
HP6520 4-1/4
HP6520 6-M6x1
HP6520 6-M8x1
HP6520 6-M10x1
HP6520 6-M12x1
HP6520 6-1/8
HP6520 6-1/4



Fittings Mod. HP6622

Swivel Single Banjo
Thread Metric parallel and BSPP ISO-228

Mod.
HP6622 6-M6
HP6622 6-M8x1
HP6622 6-1/8



Fittings Mod. HP6580

Union Connector

Mod.
HP6580 4
HP6580 6



Fittings Mod. HP6590

Bulkhead Connector
Thread Metric tapered

Mod.
HP6590 6



Fittings Mod. HP6550

Elbow connector

Mod.
HP6550 4
HP6550 6



Fittings Mod. HP6540

Tee Connector

Mod.
HP6540 4
HP6540 6



Fittings Mod. HP6560

Y-shaped Connector

Mod.
HP6560 6



Fittings Mod. HP6510 VNR

Male Connector
Thread Metric tapered and BSPT ISO-7

Mod.

HP6510 4-M8x1-VNR
HP6510 4-M10x1-VNR
HP6510 4-1/8-VNR
HP6510 6-M8x1-VNR
HP6510 6-M10x1-VNR
HP6510 6-1/8-VNR



Fittings Mod. HP6511 VNR

Male Connector
Thread Metric parallel

Mod.

HP6511 4-M10x1 VNR
HP6511 6-M10x1 VNR



Fittings Mod. HP6512 VNR

Male Connector
Thread Metric parallel and BSPP ISO-228

Mod.

HP6512 4-M8x1-VNR
HP6512 4-M10x1-VNR
HP6512 4-1/8-VNR
HP6512 6-M8x1-VNR
HP6512 6-M10x1-VNR
HP6512 6-1/8-VNR



Tube cutter tool Mod. PNZ... and PNZP-12

Tubes cutter Mod. PNZ...: replacement blades can be ordered separately.

Tubes cutter Mod. PNZP-12: plastic.

Mod.

PNZ-12	able to cut tubes with \varnothing up to 12 mm
PNZ-25	able to cut tubes with \varnothing up to 25 mm
PNZP-12	able to cut tubes with \varnothing up to 12 mm



PNZ-...



PNZP-12

Grooving tool for metallic tubes

Mod.

8TRT 4
8TRT 6



Super-rapid Compact fittings in technopolymer Series 7000

Tube external diameters: 4, 6, 8, 10, 12, 16 mm

Fittings threads: metric (M5, M7), BSP (G1/8, G1/4, G3/8, G1/2, G3/4)

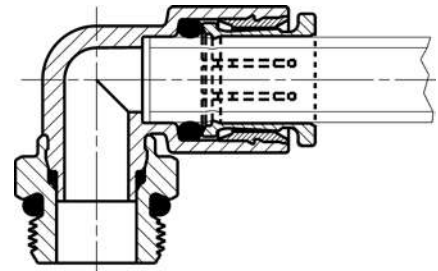


Series 7000 super-rapid fittings are realized in technopolymer.

Compact and lightweight, they are suitable for applications where weight can be a key factor.

The special collet, which has been designed properly for this series, provides an homogeneous tight on the whole surface of plastic tubes, thus ensuring high reliability and long service life, also after connections and disconnections of the tube are repeated several times.

The wide range of these fittings includes the LF version ("Stop Fitting") which is equipped with a self-retaining device interrupting the air flow when the tube is disconnected and restores it when reconnected.



GENERAL DATA

Diameters	ø 4 - 6 - 8 - 10 - 12 - 16 mm
Threads	GAS cylindrical ISO-228 (BSP)
Temperature	-20° ÷ 60°C (see the technical data of tubing used)
Tube to connect	Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Polyethylene (PE), hytrel Polyester
Medium	compressed air (for other types of fluids, contact our engineers)
Materials	- standard models: body in technopolymer; insert in brass; collet in nickel-plated brass; seals in NBR - models with self-retaining device: body in technopolymer; swivel nut, insert and collet nickel-plated brass; poppet valve in not nickel-plated brass; spring in stainless steel; seals in NBR
Working pressure	- standard models: -0.9 ÷ 16 bar (see the technical data of tubing used) - models with self-retaining device: 0 ÷ 16 bar

Fittings Mod. 7522

Metric-BSP Male Swivel Elbow

Mod.	
7522 4-M5	7522 8-3/8
7522 4-M7	7522 10-1/4
7522 4-1/8	7522 10-3/8
7522 4-1/4	7522 10-1/2
7522 6-M5	7522 12-1/4
7522 6-M7	7522 12-3/8
7522 6-1/8	7522 12-1/2
7522 6-1/4	7522 16-1/2
7522 8-1/8	7522 16-3/4
7522 8-1/4	



Fittings Mod. 7522...LF

Metric-BSP Male Swivel Elbow with self-retaining device.
This version interrupts the air flow when the tube is disconnected and restores it when reconnected.

Mod.	
7522 4-1/8-LF	
7522 6-1/8-LF	



Fittings Mod. 7526

Long BSP Male Swivel Elbow

Mod.	
7526 4-M7	
7526 4-1/8	
7526 6-M7	
7526 6-1/8	
7526 6-1/4	
7526 8-1/8	
7526 8-1/4	



Fittings Mod. 7442

Lateral BSP Swivel Male Tee

Mod.	
7442 4-1/8	7442 12-1/2
7442 6-1/8	7442 16-1/2 *
7442 6-1/4	7442 16-3/4 *
7442 8-1/8	
7442 8-1/4	
7442 8-3/8	
7442 10-1/4	
7442 10-3/8	
7442 12-3/8	

* = model without mounting holes



Fittings Mod. 7432

BSP Swivel Male Tee

Mod.	
7432 4-M5	7432 12-3/8
7432 4-1/8	7432 12-1/2
7432 6-M5	7432 16-1/2
7432 6-1/8	7432 16-3/4
7432 6-1/4	7522 16-1/2
7432 8-1/8	
7432 8-1/4	
7432 8-3/8	
7432 10-1/4	
7432 10-3/8	
7432 12-1/4	



Fittings Mod. 7542

BSP Swivel Male Multi Tee Reducer

Mod.	
7542 6-4-1/8	
7542 6-4-1/4	
7542 8-6-1/8	
7542 8-6-1/4	
7542 10-8-1/4	
7542 10-8-3/8	



Fittings Mod. 7562

BSP Swivel Male Y

Mod.	
7562 4-1/8	
7562 6-1/8	
7562 6-1/4	
7562 8-1/8	
7562 8-1/4	
7562 10-1/4	
7562 10-3/8	



Fittings Mod. 7572

BSP Male Double Y

Mod.	
7572 4-1/8	
7572 4-1/4	
7572 6-1/8	
7572 6-1/4	



Fittings Mod. 7622

Complete BSP Swivel Single Banjo

Mod.	
7622 4-1/8	
7622 6-1/8	
7622 6-1/4	
7622 8-1/8	
7622 8-1/4	
7622 10-1/4	
7622 10-3/8	
7622 12-3/8	



Fittings Mod. 7652

Complete BSP Swivel Double Banjo

Mod.	
7652 4-1/8	
7652 6-1/8	
7652 6-1/4	
7652 8-1/8	
7652 8-1/4	
7652 10-1/4	
7652 10-3/8	



Fittings Mod. 7610

Single Banjo

Mod.	
7610 4-1/8	
7610 6-1/8	
7610 6-1/4	
7610 8-1/8	
7610 8-1/4	
7610 10-1/4	
7610 10-3/8	
7610 12-3/8	



Assembled with Mod. 7632 02, 7632 03

Fittings Mod. 7640

Double Banjo

Mod.	
7640 4-1/8	
7640 6-1/8	
7640 6-1/4	
7640 8-1/8	
7640 8-1/4	
7640 10-1/4	



Assembled with Mod. 7632 02, 7632 03

Fittings Mod. 7632 02

Double Banjo Stem

Mod.	
7632 02-1/8	
7632 02-1/4	
7632 02-3/8	

Assembled with Mod. 7610, 7640



Fittings Mod. 7632 03

Triple Banjo Stem

Mod.	
7632 03-1/8	
7632 03-1/4	

Assembled with Mod. 7610, 7640



Fittings Mod. 7612 02

Complete BSP Double Adjustable Single Banjo

Mod.	
7612 02-4-1/8	
7612 02-6-1/8	
7612 02-6-1/4	
7612 02-8-1/8	
7612 02-8-1/4	
7612 02-10-1/4	
7612 02-10-3/8	
7612 02-12-3/8	



Fittings Mod. 7612 03

Complete BSP Triple Adjustable Single Banjo

Mod.
7612 03-4-1/8
7612 03-6-1/8
7612 03-6-1/4
7612 03-8-1/8
7612 03-8-1/4
7612 03-10-1/4



Fittings Mod. 7642 02

Complete BSP Double Adjustable Double Banjo

Mod.
7642 02-4-1/8
7642 02-6-1/8
7642 02-6-1/4
7642 02-8-1/8
7642 02-8-1/4
7642 02-10-1/4



Fittings Mod. 7642 03

Complete BSP Triple Adjustable Double Banjo

Mod.
7642 03-4-1/8
7642 03-6-1/8
7642 03-6-1/4
7642 03-8-1/8
7642 03-8-1/4
7642 03-10-1/4



Fittings Mod. 7800

Reducer Junction

Mod.
7800 4-6
7800 4-8
7800 6-8
7800 6-10
7800 6-12
7800 8-10
7800 8-12
7800 10-12
7800 10-14



Fittings Mod. 7555

Junction Elbow

Mod.
7555 4-4
7555 6-6
7555 8-8
7555 10-10
7555 12-12



Fittings Mod. 7580

Union Connector

Mod.
7580 4
7580 6
7580 8
7580 10
7580 12



Fittings Mod. 7550

Elbow Connector

Mod.
7550 4
7550 6
7550 8
7550 10
7550 12
7550 16



Fittings Mod. 7540

Tee Connector

Mod.
7540 4
7540 6
7540 8
7540 10
7540 12
7540 16 *

* = model without mounting holes



Fittings Mod. 7545

Multi Tee Reducer

Mod.
7545 6-4
7545 8-6
7545 10-8



Fittings Mod. 7560

Y Connector - Reducer

Mod.
7560 4
7560 6
7560 8
7560 10
7560 6-4
7560 8-6
7560 10-8



Fittings Mod. 7575

Reduced Double Y

Mod.
7575 6-4
7575 8-6



Fittings Mod. 7950

Plastic Junction

Mod.
7950 4
7950 6
7950 8
7950 10
7950 12



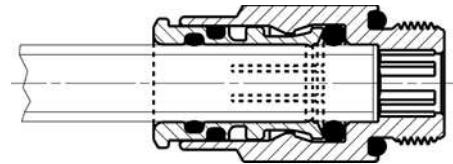
Brass dual seal super-rapid fittings Series 8000

Tube external diameters: 4, 6, 8, 10 and 12 mm
Fittings threads: BSP (G1/8, G1/4, G3/8, G1/2)



With its vast experience in manufacturing push-in connections for the pneumatics industry and its in-depth research into fluid power systems, Camozzi has developed Series 8000 super-rapid fitting evolving from Series 6000, which has been extensively tested in the pneumatic sector.

A patented additional seal provides a double tight on the tube, thus ensuring a highly reliable connection and avoiding any possible leakage that may occur. Connection and disconnection of the tube can be repeated several times without the use of proper tools and without compromising the performance of the fitting or the sealing on the tube. The NBR seals are standard and can be easily replaced with FKM and EDM seals.



GENERAL DATA

Diameters	ø 4, 6, 8, 10, 12 mm
Threads	Gas cylindrical ISO-228 (BSP)
Temperature	-20°C ÷ 80°C
Tube to connect	Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Polyethylene (PE), hytel Polyester, PTFE and metal tubing (properly shaped)
Medium	All fluids compatible with the fitting materials requiring a leak-tight seal, e.g. water. For other fluids, please contact our technicians
Materials	body and gripper: nickel-plated brass - seals: NBR
Working pressure	-0.9 ÷ 60 bar. The Series 8000 fittings can withstand a maximum pressure of 60 bar. However, the tube used might affect or limit the operating pressure considerably

Fittings Mod. 8512

BSP Male Connector

Mod.
8512 4-1/8
8512 6-1/8
8512 6-1/4
8512 8-1/8
8512 8-1/4
8512 10-1/4
8512 10-3/8
8512 12-3/8
8512 12-1/2



Fittings Mod. 8522

BSP Swivel Male Elbow

Mod.
8522 4-1/8
8522 6-1/8
8522 6-1/4
8522 8-1/8
8522 8-1/4
8522 10-1/4
8522 10-3/8
8522 12-3/8
8522 12-1/2



Fittings Mod. 8432

BSP Swivel Male Tee

Mod.
8432 4-1/8
8432 6-1/8
8432 8-1/8
8432 8-1/4



Fittings Mod. 8580

Union Connector

Mod.
8580 4
8580 6
8580 8



Fittings Mod. 8540

Tee Connector

Mod.
8540 4
8540 6
8540 8



Fittings Mod. 8550

Elbow Connector

Mod.
8550 4
8550 6
8550 8



Nickel-plated dual seal super-rapid fittings Series H8000

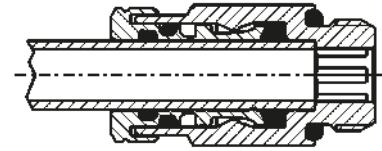
Tube external diameters: 4, 6, 8, 10, 12 mm
Fittings threads: BSP (G1/8, G1/4, G3/8, G1/2)



Series H8000 fittings are designed to be used in particularly dirty and dusty working environments. The patented system with double tightening on the tube guarantees a highly reliable connection and avoids any risk of leakage.

The special shape of the collar prevents the entry of impurities inside the fitting, guaranteeing performance over time, retention of the tube and easy connection and release.

Series H8000 fittings have a brass body, FKM seals for high temperatures (EPDM and NBR seals are also available) and can be used with pressures between -0.9 and 60 bar.



GENERAL DATA

Diameters	ø 4, 6, 8, 10, 12 mm
Threads	Gas cylindrical ISO-228 (BSP)
Temperature	With FKM seals (standard): -15°C ÷ 200°C (dry air) - With EPDM (upon request): -40°C ÷ 110°C - With NBR seals (upon request): -20°C ÷ 80°C
Tube to connect	Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Polyethylene (PE), hytrel Polyester, PTFE and metal tubing (properly shaped)
Medium	All fluids compatible with the fitting materials requiring a leak-tight seal, e.g. water. For other fluids, please contact our technicians.
Materials	body: nickel-plated brass - Gripper: nickel-plated brass - Seals: FKM (EPDM and NBR upon request)
Working pressure	-0.9 bar ÷ 60 bar. The Series H8000 fittings can withstand a maximum pressure of 60 bar. However, the tube used might affect or limit the operating pressure considerably.

Fittings Mod. H8512

BSP Male Connector

Mod.	
H8512 4-1/8-V	H8512 12-1/4-V
H8512 6-1/8-V	H8512 12-3/8-V
H8512 6-1/4-V	H8512 12-1/2-V
H8512 8-1/8-V	
H8512 8-1/4-V	
H8512 8-3/8-V	
H8512 10-1/8-V	
H8512 10-1/4-V	
H8512 10-3/8-V	
H8512 10-1/2-V	



Fittings Mod. H8522

BSP Swivel Male Elbow

Mod.	
H8522 4-1/8-V	H8522 12-1/4-V
H8522 6-1/8-V	H8522 12-3/8-V
H8522 6-1/4-V	H8522 12-1/2-V
H8522 8-1/8-V	
H8522 8-1/4-V	
H8522 8-3/8-V	
H8522 10-1/8-V	
H8522 10-1/4-V	
H8522 10-3/8-V	
H8522 10-1/2-V	



Fittings Mod. H8580

Union Connector

Mod.
H8580 4-V
H8580 6-V
H8580 8-V
H8580 10-V
H8580 12-V



Fittings Mod. H8540

Tee Connector

Mod.
H8540 4-V
H8540 6-V
H8540 8-V
H8540 10-V
H8540 12-V



Fittings Mod. H8550

Elbow Connector

Mod.
H8550 4-V
H8550 6-V
H8550 8-V
H8550 10-V
H8550 12-V



Fittings for misting systems

Series 6000M

External tube diameters: 1/4, 3/8, 1/2 inch

Fitting threads: 1/4, 3/8, 1/2 NPTF; 12/24 UNC; 10/24 UNC; 9/16-24 UNEF



Series 6000M fittings have been designed and produced to meet the specific requirements of the misting sector.

This new range takes origin from the already existing Series 6000, which has been changed and enriched with new accessories.

The push-in fittings system ensures maximum tightening even at very high working pressures.

GENERAL DATA

Materials	body and collet: nickel-plated brass O-ring: NBR
Threads	1/4, 3/8, 1/2 NPTF; 12/24 UNC; 10/24 UNC; 9/16-24 UNEF
Pressure	-0.9 bar ÷ 80 bar (see the tubes)
Connection tube	Rilsan® polyamide 11 (PA11) polyamide 12 (PA12) metal tubes (for further details please contact our technicians)
Diameters	1/4" (Ø 6,35), 3/8" (Ø 9,53), 1/2" (Ø 12,7)
Medium	water and compressed air (for other kinds of fluids please contact our technicians)
Temperature	-20°C ÷ 80°C (see the characteristics of the tubes used)

CODING EXAMPLE

M	6150	04	-	04	-	S01
----------	-------------	-----------	----------	-----------	----------	------------

M	SERIES 6000M
6150	BODY STYLE 2033 - 2103 - 2532 - 6103 - 6510 - 6540 - 6550 - 6560 - 6580 - 6750 - 6900 - 6953
04	TUBE SIZE 02 = 3.17 mm - 53 = 4 mm - 04 = 6.35 mm - 06 = 9.53 mm - 08 = 12.7 mm
04	THREAD SIZE 00 = no thread - 0T = no thread, brass version - 32 = 10/32 UNF - 01 = 1/16 NPTF (NPT) - 02 = 1/8 NPTF (NPT) - 04 = 1/4 NPTF (NPT) 06 = 3/8 NPTF (NPT) - 08 = 1/2 NPTF (NPT) - 10/24 - UNC
S01	SPECIAL VERSIONS S01 = special version 1 S02 = special version 2

Fittings Mod. M6540

Union Tee

Mod.
M6540 04-00
M6540 06-00
M6540 08-00



Fittings Mod. M6550

Union Elbow

Mod.
M6550 04-00
M6550 06-00
M6550 08-00



Fittings Mod. M6580

Union Straight

Mod.
M6580 04-00
M6580 06-00
M6580 08-00



Fittings Mod. M6510

NPTF Male Straight

Mod.
M6510 04-04
M6510 04-06
M6510 06-06
M6510 06-08
M6510 08-08



Fittings Mod. M6103

45° Elbow Adaptor

Mod.
M6103 04-32-S02



Fittings Mod. M6953

Straight Adaptor

Mod.
M6953 04-32-S02



Fittings Mod. M6580 06...S0...

Union Straight with hole for nozzle

Mod.
M6580 06-00-S01 *
M6580 06-00-S02 •

* = 10/24 UNC
• = 12/24 UNC



Fittings Mod. M6540 04...S01

Union Tee Adaptor

Mod.
M6540 04-10/24-UNC-S01



Fittings Mod. M6540 04...S02

Union Straight with hole for nozzle

Mod.
M6540 04-10/24-UNC-S02



Fittings Mod. M6900

Male Plug

Mod.
M6900 04-OT
M6900 06-OT



Fittings Mod. M6750

Female Plug

Mod.
M6750 04-00
M6750 06-00
M6750 08-00



Fittings Mod. M6560

Union Y

Mod.
M6560 02-00
M6560 53-00
M6560 04-00



Fittings Mod. M2103

45° threaded Elbow

Mod.
M2103 04-9/16-24-UNEF



Fittings Mod. M2532

Plug Hole

Mod.
M2532 9/16-24-UNEF-10/24-UNC



Fittings Mod. M2033

Female Cross

Mod.
M2033 04-00
M2033 06-00



Tubes in polyamide PA11 Rilsan®

Mod. TRSR
Colour: black



Mod.
TRSR 6,35/3,2

Tubes in polyamide PA12 Mod. TSR

Colour: black



Mod.
TSR 9,53/5
TSR 12,7/7

Tubes cutters Mod. PNZ and PNZP

Replacement blades of Mod. PNZ can be ordered separately Tubes cutter Mod. PNZP is in plastic



Mod.
PNZ-12 able to cut tubes with Ø till to 12 mm
PNZP-12 able to cut tubes with Ø till to 12 mm

Disconnecting tube set Mod. SP

The set includes keys to disconnect tubes with diameters between 5/32" and 1/2"



Mod.
SP

Fluidics in technopolymer hot water cooling applications

Series 7000 Fluidics

Tube external diameters: 6, 8, 10, 12, 16 mm

Fittings threads: BSP (G1/8, G1/4, G3/8, G1/2, G3/4), M5



Series 7000 Fluidics push-in fittings enable smooth passage of fluids in cooling systems. Liquid cooling systems are considered to be better than air cooling, in terms of efficiency, effectiveness, compactness and noise in a wide range of applications from computer servers to industrial equipment. The Series 7000 Fluidics fitting range has been designed with a special technopolymer, based on renewable raw materials, that allows the component to resist water absorption, temperature variations and cooling liquid additives. The material maintains constant dimensional stability in contact with different fluids and does not breakdown with age.

Advanced gripping characteristics make the Series 7000 Fluidics an excellent alternative to traditional fittings, guaranteeing a uniform tightening on the whole surface of the tube. This enhances high reliability and resistance to repeated connections and disconnections of the tube. Reliable connection, compact dimensions and easy installation in confined spaces are only some of the features that make these new fittings an innovative solution for a wide range of cooling systems.

GENERAL DATA

Diameters	Ø6mm	Ø8mm	Ø10mm	Ø12mm	Ø16mm
Working pressure at -20°/+40°	16bar	16bar	14bar	14bar	12bar
Working pressure at -20°/+70°	16bar	14bar	12bar	10bar	8bar
Working pressure at -20°/+100°	14bar	12bar	10bar	8bar	6bar
Threads	GAS cylindrical ISO-228 (BSPP)				
Tube to connect	Polyurethane (PU), Polyethylene (PE), Polyamide (PA)				
Medium	Suitable for use with industrial water supplies and specialist cooling fluids. (Please contact us to discuss suitability for other fluids).				
Materials	Body: Technopolymer PA11, Seals: EPDM. Threads: Chemical Nickel Plating. Collet (not in contact with cooling fluids): nickel Plated				

Fittings Mod. F6512K

BSP Male Connector

Mod.
F6512 6-1/8K
F6512 6-1/4K
F6512 8-1/8K
F6512 8-1/4K
F6512 8-3/8K
F6512 10-1/4K
F6512 10-3/8K
F6512 10-1/2K
F6512 12-3/8K
F6512 12-1/2K
F6512 16-1/2K *
F6512 16-3/4K *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F6463K

BSP Female Connector

Mod.
F6463 6-1/8K
F6463 6-1/4K
F6463 8-1/8K
F6463 8-1/4K
F6463 8-3/8K
F6463 10-1/4K
F6463 10-3/8K
F6463 10-1/2K
F6463 12-3/8K
F6463 12-1/2K
F6463 16-1/2K *
F6463 16-3/4K *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F6700K

Cartridge

Mod.
F6700 6K
F6700 8K
F6700 10K



Fittings Mod. F7522K

BSP Male Swivel Elbow

Mod.
F7522 6-M5K
F7522 6-1/8K
F7522 6-1/4K
F7522 8-1/8K
F7522 8-1/4K
F7522 8-3/8K
F7522 10-1/4K
F7522 10-3/8K
F7522 10-1/2K
F7522 12-1/4K
F7522 12-3/8K
F7522 12-1/2K
F7522 16-1/2K *
F7522 16-3/4K *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F7526K

Long BSP Male Swivel Elbow

Mod.
F7526 6-1/8K
F7526 6-1/4K
F7526 8-1/8K
F7526 8-1/4K
F7526 8-3/8K
F7526 10-1/4K
F7526 10-3/8K
F7526 10-1/2K
F7526 12-3/8K
F7526 12-1/2K
F7526 16-1/2K *
F7526 16-3/4K *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F7550

Elbow Connector

Mod.
F7550 6
F7550 8
F7550 10
F7550 12
F7550 16 *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F7580

Union Connector

Mod.
F7580 6
F7580 8
F7580 10
F7580 12



Fittings Mod. F7540

Tee Connector

Mod.
F7540 6
F7540 8
F7540 10
F7540 12
F7540 16 *



* = Integrated Locking Clip to secure the collet in its position

Fittings Mod. F7560

Y Connector - Reducer

Mod.
F7560 6
F7560 8
F7560 10



Fittings Mod. F7545

Multi Tee Reducer

Mod.
F7545 8-6
F7545 10-8



Fittings Mod. F7555

Junction Elbow

Mod.
F7555 6-6
F7555 8-8
F7555 10-10
F7555 12-12



Fittings Mod. F7800

Reducer Junction

Mod.
F7800 4-6
F7800 4-8
F7800 6-8
F7800 6-10
F7800 6-12
F7800 8-10
F7800 8-12
F7800 10-12



Fittings Mod. F6750K

Female Plug

Mod.
F6750 6K
F6750 8K
F6750 10K
F6750 12K
F6750 16K *

* = Integrated Locking Clip to secure the collet in its position



Accessory Mod. 6900

Plastic Male Plug

Mod.
6900 6
6900 8
6900 10
6900 12



Fittings Mod. 2611

BSP Male Plug

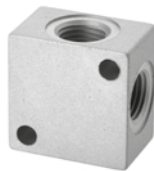
Mod.
2611 1/8
2611 1/4
2611 3/8
2611 1/2
2611 1



Accessories Mod. 3033

4 Ways Distribution Block with fixing holes
Material: anodized Aluminium

Mod.
3033 1/8
3033 1/4
3033 3/8
3033 1/2



Accessories Mod. 3043

Manifold with double lateral outlets
Material: anodized Aluminium

Mod.	
3043 1/4-3D-1/8	3043 1/2-5D-3/8
3043 1/4-4D-1/8	3043 1/2-6D-3/8
3043 1/4-5D-1/8	3043 3/8-5D-1/4
3043 1/4-6D-1/8	3043 3/8-6D-1/4
3043 3/8-3D-1/4	3043 1/2-3D-3/8
3043 3/8-4D-1/4	3043 1/2-4D-3/8



Accessories Mod. 3053

Manifold with lateral outlets
Material: anodized Aluminium

Mod.	
3043 1/4-3D-1/8	3043 1/2-5D-3/8
3043 1/4-4D-1/8	3043 1/2-6D-3/8
3043 1/4-5D-1/8	3043 3/8-5D-1/4
3043 1/4-6D-1/8	3043 3/8-6D-1/4
3043 3/8-3D-1/4	3043 1/2-3D-3/8
3043 3/8-4D-1/4	3043 1/2-4D-3/8



Air Brake Fittings Series 9000



Series 9000 fittings have been designed to connect tubing according to DIN 74324 or ISO 7628 in the pneumatic brake systems of commercial vehicles. They offer excellent reliability and ease of assembly. The range includes a very compact release tool for disconnecting tubes from the fittings.

The tube interface is shielded by a rubber cap for protecting the internal parts against dirt and water ingress. The integrity level of the interface concept, even during disassembling, is outstanding.

The Series 9000 offers a smart portfolio of different types of connectors. Depending on the demands of our customers, we are also ready to provide customized solutions.

Series 9000 fittings are TÜV certified and produced according to IATF 16949:2016 standards.

GENERAL DATA

Thread type	Metric acc. ISO965 / Conical NPTF acc. ANSI B1.20.3
Media	Compressed air (other fluids, please contact our technicians)
Operating pressure	Up to 16 bar (review also tube specifications)
Operating temperature	-50°C up to 100°C (peak) (review also tube specifications)
Tubes	Designed for use with Polyamide or Hytre!® tubing, compliant with standards DIN 73378, DIN 74324 or ISO 7628

Straight fittings Mod. 9512

Mod.	
9512 6-M10X1	9512 10/7,5-M16X1,5R
9512 6-M12X1,5R	9512 10/7,5-M22X1,5R
9512 6-M14X1,5R	9512 10-M12X1,5R
9512 6-M16X1,5R	9512 10-M16X1,5R
9512 6-M22X1,5R	9512 10-M22X1,5R
9512 8-M10X1	9512 12-M12X1,5R
9512 8-M12X1,5R	9512 12-M14X1,5R
9512 8-M14X1,5R	9512 12-M16X1,5R
9512 8-M16X1,5R	9512 12-M22X1,5R
9512 8-M22X1,5R	9512 15-M16X1,5R
9512 10/7-M12X1,5R	9512 15-M22X1,5R
9512 10/7-M16X1,5R	9512 16/12-M16X1,5R
9512 10/7-M22X1,5R	9512 16/12-M22X1,5R
9512 10/7,5-M12X1,5R	9512 18-M22X1,5R



Straight fittings Mod. D6512

Supplied without any insert

Mod.
D6512 4-M10X1



Straight fittings Mod. 9510

Mod.
9510 6-02
9510 05-02



Straight fittings with female thread Mod. 9463

Mod.
9463 6-M12X1,5
9463 6-M16X1,5
9463 8-M10X1
9463 8-M16X1,5



Bulkhead connectors Mod. 9590

Mod.
9590 8-M18X1,5
9590 12-M18X1,5



Bulkhead connectors with 24° cone Mod. 9590

Supplied without nut;
Combine with D1593

Mod.
9590 6-M14x1,5
9590 8-M14x1,5
9590 8-M16x1,5
9590 12-M18x1,5-S06



Bulkhead connectors Mod. 9592

Mod.
9592 8-M20X1,5-M16X1,5R
9592 10/7-M22X1,5-M22X1,5R
9592 12-M24X1,5-M16X1,5R



Elbow fittings Mod. 9502

Mod.	
9502 6-M10X1R	9502 10/7,5-M16X1,5R
9502 6-M12X1,5R	9502 10/7,5-M22X1,5R
9502 6-M16X1,5R	9502 10-M12X1,5R
9502 6-M22X1,5R	9502 10-M16X1,5R
9502 8-M10X1R	9502 10-M22X1,5R
9502 8-M12X1,5R	9502 12-M12X1,5R
9502 8-M14X1,5R	9502 12-M16X1,5R
9502 8-M16X1,5R	9502 12-M22X1,5R
9502 8-M22X1,5R	9502 15-M16X1,5R
9502 8-1/8R	9502 15-M22X1,5R
9502 10/7-M12X1,5R	9502 16/12-M16X1,5R
9502 10/7-M16X1,5R	9502 16/12-M22X1,5R
9502 10/7-M22X1,5R	9502 18-M22X1,5R
9502 10/7,5-M12X1,5R	



Elbow fittings Mod. 9500

Mod.
9500 6-02
9500 05-02
9500 12-06



Branch Tee fittings Mod. 9412

Mod.	
9412 6-M10X1R	9412 10/7-M22X1,5R
9412 6-M12X1,5R	9412 10-M12X1,5R
9412 6-M16X1,5R	9412 10-M16X1,5R
9412 6-M22X1,5R	9412 10-M22X1,5R
9412 8-M12X1,5R	9412 12-M12X1,5R
9412 8-M16X1,5R	9412 12-M16X1,5R
9412 8-M22X1,5R	9412 12-M22X1,5R
9412 10/7-M12X1,5R	9412 15-M16X1,5R
9412 10/7-M16X1,5R	9412 15-M22X1,5R



Branch Tee fittings Mod. 9410

Mod.
9410 6-02
9410 05-02



Run Tee fittings Mod. 9422

Mod.
9422 6-M10X1R
9422 6-M12X1,5R
9422 6-M16X1,5R
9422 8-M12X1,5R
9422 8-M16X1,5R
9422 8-M22X1,5R
9422 10-M16X1,5R
9422 10-M22X1,5R
9422 12-M16X1,5R
9422 12-M22X1,5R



Run Tee fittings Mod. 9420

Mod.
9420 6-02
9420 05-02



135° Elbow fittings Mod. 9102

Mod.
9102 12-M16X1,5R



Plug-In elbow connectors Mod. 9555

Mod.
9555 6-6
9555 8-8
9555 12-12



Y fittings Mod. 9450

Mod.
9450 8-M16X1,5R
9450 12-M16X1,5R
9450 12-M22X1,5R



Elbow fittings Mod. 9402

Mod.
9402 8-M16X1,5R
9402 8-M22X1,5R
9402 12-M16X1,5R
9402 12-M22X1,5R



Swivel studs Mod. D2912

Mod.
D2912 C1-M10X1B
D2912 C1-M12X1,5B
D2912 C1-M14X1,5B
D2912 C1-M16X1,5B/1*
D2912 C1-M22X1,5B/1*
D2912 C1-1/4

* = usable with Mod. 9707 anti-rotation ring; compare SW.



Bulkhead swivel studs Mod. D2993

Supplied without nut; Combine with D1593

Mod.
D2993 C1-M16X1,5-M22X1,5/1*

* = usable with Mod. 9707 anti-rotation ring; compare SW.



Bulkhead swivel connectors Mod. 9919

Supplied without nut; Combine with D1593

Mod.
9919 C1-8-M20X1,5/1*
9919 C1-12-M24X1,5/1*

* = usable with Mod. 9707 anti-rotation ring; compare SW.



Anti-rotation ring Mod. 9707

Mod.
9707 22-C1
9707 24-C1
9707 28-C1

* = Usable with Mod. D2912, D2993, 9919; compare SW.



Swivel Elbow fittings Mod. 9520

Mod.
9520 6-C1
9520 8-C1
9520 10/7-C1
9520 10/7,5-C1
9520 10-C1
9520 12-C1
9520 15-C1
9520 16/12-C1



Swivel branch Tee fittings Mod. 9430

Mod.
9430 6-C1
9430 8-C1
9430 10/7-C1
9430 10-C1
9430 12-C1
9430 15-C1



Swivel run Tee fittings Mod. 9440

Mod.
9440 6-C1
9440 8-C1
9440 10/7-C1
9440 10-C1
9440 12-C1
9440 15-C1



Swivel Elbow adaptors Mod. D2220

Mod.
D2220 M12X1,5-C1
D2220 M16X1,5-C1



Swivel branch Tee adaptors Mod. D2260

Mod.
D2260 M12X1,5-C1
D2260 M16X1,5-C1



Swivel run Tee adaptors Mod. D2270

Mod.
D2270 M12X1,5-C1
D2270 M16X1,5-C1



Swivel 135° adaptors Mod. D2210

Mod.
D2210 M16X1,5-C1

* = Not compatible with anti rotation ring Mod. 9707



Straight connectors Mod. 9580

Mod.
9580 6
9580 8
9580 10/7
9580 10/7,5
9580 10
9580 12
9580 12-8
9580 15
9580 16/12
9580 18



Bulkhead connectors Mod. 9592

Mod.
9592 6-6-M18X1,5
9592 8-8-M18X1,5
9592 8-8-M20X1,5
9592 12-8-M18X1,5
9592 12-12-M24X1,5
9592 15-15-M28X1,5



Barb connectors Mod. 9851

Mod.
9851 8-6
9851 12-9

* = Barb profile according to DIN 73377 | 9851 8-6 allows to connect 8x1 to 9x1,5 tubing



Tee connectors Mod. 9540

Mod.
9540 6
9540 8
9540 10/7
9540 10
9540 12
9540 15
9540 16/12
9540 8-8-6
9540 12-12-8



Y connectors Mod. 9560

Mod.
9560 8
9560 12



Bulkhead adaptors Mod. D2502 and D2512

Mod.
D2502 M22X1,5R-M22X1,5R-M16X1,5-L=39
D2502 M22X1,5R-M22X1,5R
D2512 M22X1,5R-M16X1,5R



Bulkhead adaptors Mod. D2592

Supplied without nut; Combine with D1593

Mod.
D2592 M10X1-M16x1,5B-M16X1,5
D2592 M16X1,5-M16x1,5B-M22X1,5
D2592 M16X1,5-M22x1,5B-M22X1,5



Bulkhead reducers Mod. D2593

Supplied without nut; Combine with D1593

Mod.
D2593 M12x1,5-M18x1,5
D2593 M16X1,5-M22x1,5
D2593 M22x1,5-M28x1,5



Union Mod. D2543

Mod.
D2543 M10X1/1
D2543 M12X1,5/1
D2543 M16X1,5/1
D2543 M22X1,5/1



Reducer Mod. D2532

Mod.
D2532 M12X1,5-M16X1,5B
D2532 M12X1,5-M22X1,5B
D2532 M14X1,5-M16X1,5B
D2532 M16X1,5-M22X1,5B



Hose adaptors Mod. D2602

Mod.
D2602 10-M16X1,5B
D2602 10-M22X1,5B
D2602 11-M16X1,5B
D2602 11-M22X1,5B
D2602 12-M16X1,5B
D2602 12-M22X1,5B
D2602 13-M16X1,5B
D2602 13-M22X1,5B



Elbow adaptors Mod. D2022

Mod.
D2022 M16X1,5-M16X1,5R
D2022 M16X1,5-M22X1,5R
D2022 M22X1,5-M22X1,5R



Branch Tee adaptors Mod. D2062

Mod.
D2062 M16X1,5-M12X1,5R/1
D2062 M16X1,5-M16X1,5R
D2062 M16X1,5-M22X1,5R
D2062 M22X1,5-M22X1,5R/1



Run Tee adaptors Mod. D2072

Mod.
D2072 M16X1,5-M12X1,5R/1
D2072 M16X1,5-M16X1,5R
D2072 M16X1,5-M22X1,5R
D2072 M22X1,5-M22X1,5R/1



Branch Tee adaptors Mod. D2003

Mod.
D2003 M16X1,5
D2003 M22X1,5/1



Branch Tee adaptors Mod. D2003...S01

Mod.
D2003 M16X1,5-S01



Cross adaptors Mod. D2032

Mod.
D2032 M16X1,5-M16X1,5R
D2032 M16X1,5-M22X1,5R



Bilateral Tee adaptors Mod. D2077

Mod.
D2077 M16X1,5-M16X1,5R
D2077 M16X1,5-M22X1,5R



Multiport adaptor Mod. D3043

Mod.
D3043 M16X1,5-2D-M16X1,5-S01



Plug (inner hex.) Mod. D2612

Mod.
D2612 M12X1,5R
D2612 M16X1,5R
D2612 M22X1,5R



Plug (outer hex.) Mod. D2612

Mod.
D2612 M10X1,5B
D2612 M12X1,5B
D2612 M16X1,5B
D2612 M22X1,5B



Test point valve Mod. VPC2

Mod.
VPC2 M16X1,5B-M16X1,5
VPC2 M22X1,5BR-M16X1,5



Bulkhead with test point & tube connection Mod. VPC2

Mod.
VPC2 M16X1,5-8-M18X1,5
VPC2 M16X1,5-8-M20X1,5



Drain valve Mod. VDC2

Mod.
VDC2 M22X1,5B
VDC2 M22X1,5B/1

/1: drain valve with ring



Tyre inflator valve Mod. V604

Mod.
V604 M22X1,5R



Bulkhead nut Mod. D1593

Mod.
D1593 M16x1,5
D1593 M18x1,5
D1593 M20x1,5
D1593 M22x1,5
D1593 M24x1,5
D1593 M28x1,5



Thread nut Mod. D1593

The nut is supplied with NBR O-Ring

Mod.
D1593 1/8R/1
D1593 M10x1/1
D1593 M12x1,5R/1
D1593 M14x1,5R/1
D1593 M16x1,5R/1
D1593 M22x1,5R/1



Tubes Mod. TRN

Black tubes in polyamide (PA12)
According to standards:
- DIN 74324 (except for Mod. TRN 10/7-N)
- REACH REGULATION (EC N°1907/2006)
- EUROPEAN DIRECTIVE RoHS n° 2002/95/EC

Mod.
TRN 4/2 NX
TRN 6/4 NX
TRN 8/6 NX
TRN 10/7-N
TRN 10/7,5 N
TRN 10/8 NX
TRN 12/9 NX
TRN 15/12 NX
TRN 16/12 NX
TRN 18/14 NX



Release tool Mod. DRK

Material: technopolymer

Mod.
DRK 6
DRK 8
DRK 10
DRK 12
DRK 15
DRK 16
DRK 18



Tube cutting tools Mod. PNZ and PNZP

Mod.
PNZ-12 For tubes with Ø up to 12 mm
PNZ-25 For tubes with Ø up to 25 mm
PNZP-12 For tubes with Ø up to 12 mm



New

GRIPfit push-in fittings

Series 7000 - Automation

Tube external diameters: 4, 6, 8 mm

Fittings threads: ISO-965 Metric parallel (M5, M7, M10x1, M12x1,25),

ISO-7 BSPT (R1/8, R1/4, R3/8, R1/2),

ISO-228 BSPP (G1/8, G1/4, G3/8, G1/2)



- » Optimum sealing
- » Maximum flow
- » Compact and lightweight

Series 7000 Automation push-in fittings are made of reinforced technopolymer to meet the new market demands for reliability, ease of use and efficient solutions. Their compact dimensions and lightweight make this new range of fittings ideal for most pneumatic applications associated with optimum gripping and sealing technologies.



GENERAL DATA

Diameters	4mm	6mm	8mm	10mm	12mm	16mm
Maximum operating pressure	-20° / +40°	16 bar	16 bar	16 bar	-	-
	+40° / +60°	16 bar	16 bar	15 bar	-	-
	+60° / +80°	16 bar	14 bar	12 bar	-	-
Minimum operating pressure	-0,9 bar					
Temperature	-20 ÷ +80 (Vedere caratteristiche tubi impiegati)					
Threads	Cylindrical gas ISO-228 BSPP					
	Conical gas ISO-7 BSPT (with pre-applied PTFE sealant) ISO-965 Metric parallel					
Connecting tube	Polyurethane (PU), Polyethylene (PE), Polyamide (PA), Fluoropolymer (PTFE), Polyester (HY3L), rigid metal pipe with smooth grooved metal end					
Fluid	Compressed air (for other fluids consult our technicians)					
Materials	Body = Technopolymer (PA66), Nickel-plated brass					
	Button = Technopolymer (PA66)					
	Gripping ring = Stainless steel (AISI 301)					
	Seals = NBR					
	Thread = Nickel-plated brass					

Fittings Mod. G6510

Male straight connector
Nickel-plated brass
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G6510 4-1/8	4	G6510 10-1/8	10
G6510 4-1/4	4	G6510 10-1/4	10
G6510 6-1/8	6	G6510 10-3/8	10
G6510 6-1/4	6	G6510 10-1/2	10
G6510 6-3/8	6	G6510 12-1/4	12
G6510 6-1/2	6	G6510 12-3/8	12
G6510 8-1/8	8	G6510 12-1/2	12
G6510 8-1/4	8	G6510 16-1/2	16
G6510 8-3/8	8	G6510 16-3/4	16
G6510 8-1/2	8	Ø 10, 12, 16 available soon	



Fittings Mod. G6512

Male straight connector
Nickel-plated brass
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G6512 4-M5	4	G6512 10-14	10
G6512 4-1/8	4	G6512 10-3/8	10
G6512 4-1/4	4	G6512 10-1/2	10
G6512 6-M5	6	G6512 12-1/4	12
G6512 6-M10X1	6	G6512 12-3/8	12
G6512 6-M12X1,5	6	G6512 12-1/2	12
G6512 6-1/8	6	G6512 16-1/2	16
G6512 6-1/4	6	G6512 16-3/4	16
G6512 6-3/8	6	Ø 10, 12, 16 available soon	
G6512 6-1/2	6		
G6512 8-M10X1	8		
G6512 8-M12X1,5	8		
G6512 8-1/8	8		
G6512 8-1/4	8		
G6512 8-3/8	8		
G6512 8-1/2	8		



Fittings Mod. G6512_M

Male straight connector
Nickel-plated brass
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø
G6512 4-M5-M	4
G6512 4-M7-M	4
G6512 4-1/8-M	4
G6512 6-M5-M	6
G6512 6-M7-M	6
G6512 6-1/8-M	6
G6512 6-1/4-M	6



Fittings Mod. G6463

Female straight connector
Nickel-plated brass
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G6463 4-M5	4	G6463 10-1/4	10
G6463 4-1/8	4	G6463 10-3/8	10
G6463 4-1/4	4	G6463 10-1/2	10
G6463 6-1/8	6	G6463 12-3/8	12
G6463 6-1/4	6	G6463 12-1/2	12
G6463 8-1/8	8	G6463 16-1/2	16
G6463 8-1/4	8	Ø 10, 12, 16 available soon	
G6463 8-3/8	8		



Fittings Mod. G6812

Male straight adaptor
Nickel-plated brass
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G6812 4-M5	4	G6812 10-1/4	10
G6812 4-1/8	4	G6812 10-3/8	10
G6812 6-M5	6	G6812 12-14	12
G6812 6-1/8	6	G6812 12-3/8	12
G6812 6-1/4	6	G6812 16-1/2	16
G6812 6-3/8	6	Ø 10, 12, 16 available soon	
G6812 8-1/8	8		
G6812 8-1/4	8		
G6812 8-3/8	8		



Fittings Mod. G7523

Swivel female elbow
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7523 4-1/8	4	G7523 10-1/4	10
G7523 4-1/4	4	G7523 10-3/8	10
G7523 6-1/8	6	Ø 10 available soon	
G7523 6-1/4	6		
G7523 8-1/8	8		
G7523 8-1/4	8		
G7523 8-3/8	8		



Fittings Mod. G7520

Swivel male elbow
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G7520 4-1/8	4	G7520 10-1/4	10
G7520 4-1/4	4	G7520 10-3/8	10
G7520 6-1/8	6	G7520 10-1/2	10
G7520 6-1/4	6	G7520 12-1/4	12
G7520 6-3/8	6	G7520 12-3/8	12
G7520 6-1/2	6	G7520 12-1/2	12
G7520 8-1/8	8	G7520 16-1/2	16
G7520 8-1/4	8	G7520 16-3/4	16
G7520 8-3/8	8	Ø 10, 12, 16 available soon	



Fittings Mod. G7522

Swivel male elbow
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7522 4-M5	4	G7522 10-1/4	10
G7522 4-M7	4	G7522 10-3/8	10
G7522 4-1/8	4	G7522 10-1/2	10
G7522 4-1/4	4	G7522 12-1/4	12
G7522 6-M5	6	G7522 12-3/8	12
G7522 6-M7	6	G7522 12-1/2	12
G7522 6-M10x1	6	G7522 16-1/2	16
G7522 6-M12x1,5	6	G7522 16-3/4	16
G7522 6-1/8	6	Ø 10, 12, 16 available soon	
G7522 6-1/4	6		
G7522 6-3/8	6		
G7522 6-1/2	6		
G7522 8-M10X1	8		
G7522 8-M12X1,5	8		
G7522 8-1/8	8		
G7522 8-1/4	8		
G7522 8-3/8	8		



Fittings Mod. G7527

Swivel male long elbow
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G7527 4-1/8	4	G7528 10-1/4	10
G7527 6-1/8	6	Ø 10 available soon	
G7527 6-1/4	6		
G7527 8-1/8	8		
G7527 8-1/4	8		

**Fittings Mod. G7526**

Swivel male long elbow
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7526 4-M5	4	G7526 10-1/4	10
G7526 4-1/8	4	Ø 10 available soon	
G7526 4-1/4	4		
G7526 6-M5	6		
G7526 6-M7	6		
G7526 6-1/8	6		
G7526 6-1/4	6		
G7526 8-1/8	8		
G7526 8-1/4	8		

**Fittings Mod. G7430**

Swivel male central tee
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G7430 4-1/8	4	G7430 10-1/4	10
G7430 6-1/8	6	G7430 10-3/8	10
G7430 6-1/4	6	G7430 12-1/4	12
G7430 8-1/8	8	G7430 12-3/8	12
G7430 8-1/4	8	Ø 10, 12 available soon	

**Fittings Mod. G7432**

Swivel male central tee
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7432 4-M5	4	G7432 10-1/4	10
G7432 4-1/8	4	G7432 10-3/8	10
G7432 6-M5	6	G7432 12-1/4	12
G7432 6-1/8	6	G7432 12-3/8	12
G7432 6-1/4	6	G7432 16-1/2	16
G7432 8-1/8	8	G7432 16-3/4	16
G7432 8-1/4	8	Ø 10, 12, 16 available soon	
G7432 8-3/8	8		

**Fittings Mod. G7440**

Swivel male lateral tee
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G7440 4-1/8	4	G7441 10-1/4	10
G7440 6-1/8	6	G7442 12-1/4	12
G7440 6-1/4	6	G7443 12-3/8	12
G7440 8-1/8	8	Ø 10, 12 available soon	
G7440 8-1/4	8		

**Fittings Mod. G7442**

Swivel male lateral tee
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7442 4-M5	4	G7442 10-1/4	10
G7442 4-1/8	4	G7442 10-3/8	10
G7442 6-M5	6	G7442 12-1/4	12
G7442 6-1/8	6	G7442 12-3/8	12
G7442 6-1/4	6	G7442 12-1/2	12
G7442 8-1/8	8	Ø 10, 12 available soon	
G7442 8-1/4	8		
G7442 8-3/8	8		

**Fittings Mod. G7450**

Swivel male Y
Thread BSPT ISO-7 (with pre-applied PTFE sealant)

Mod.	Ø	Mod.	Ø
G7450 4-1/8	4	G7450 10-1/4	10
G7450 6-1/8	6	G7450 10-3/8	10
G7450 6-1/4	6	Ø 10 available soon	
G7450 8-1/8	8		
G7450 8-1/4	8		

**Fittings Mod. G7562**

Swivel male Y
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7562 4-1/8	4	G7562 10-1/4	10
G7562 6-1/8	6	G7562 10-3/8	10
G7562 6-1/4	6	Ø 10 available soon	
G7562 8-1/8	8		
G7562 8-1/4	8		

**Fittings Mod. G7572**

Swivel male double Y
Thread BSPP ISO-228

Mod.	Ø
G7572 4-1/8	4
G7572 4-1/4	4
G7572 6-1/8	6
G7572 6-1/4	6



Fittings Mod. G7622

Swivel male single banjo
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
G6622 4-M5*	4	G7622 10-1/4	10
G7622 4-1/8	4	G7622 10-3/8	10
G6622 6-M5*	6	G7622 12-3/8	12
G7622 6-1/8	6	Ø 10, 12 available soon	
G7622 6-1/4	6		
G7622 8-1/8	8		
G7622 8-1/4	8		

* brass body



Fittings Mod. G7652

Swivel male Y banjo
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7652 4-1/8	4	G7652 10-1/4	10
G7652 6-1/8	6	G7652 10-3/8	10
G7652 6-1/4	6	Ø 10 available soon	
G7652 8-1/8	8		
G7652 8-1/4	8		



Fittings Mod. G7612 02

Male double single banjo adjustable
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7612-02 4-1/8	4	G7612-02 10-1/4	10
G7612-02 6-1/8	6	G7612-02 10-3/8	10
G7612-02 6-1/4	6	G7612-02 12-3/8	12
G7612-02 8-1/8	8	Ø 10, 12 available soon	
G7612-02 8-1/4	8		



Fittings Mod. G7612 03

Male triple single banjo adjustable
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7612-03 4-1/8	4	G7612-03 10-1/4	10
G7612-03 6-1/8	6	Ø 10 available soon	
G7612-03 6-1/4	6		
G7612-03 8-1/8	8		
G7612-03 8-1/4	8		



Fittings Mod. G7642 02

Male double Y banjo adjustable
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7642-02 4-1/8	4	G7642-02 10-1/4	10
G7642-02 6-1/8	6	Ø 10 available soon	
G7642-02 6-1/4	6		
G7642-02 8-1/8	8		
G7642-02 8-1/4	8		



Fittings Mod. G7642 03

Male triple Y banjo adjustable
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
G7642-03 4-1/8	4	G7642-03 10-1/4	10
G7642-03 6-1/8	6	Ø 10 available soon	
G7642-03 6-1/4	6		
G7642-03 8-1/8	8		
G7642-03 8-1/4	8		



Fittings Mod. G7610

To be assembled with Mod. 7632 02, 7632 03
Single banjo body

Mod.	Ø	Mod.	Ø
G7610 4-1/8	4	G7610 10-1/4	10
G7610 6-1/8	6	G7610 10-3/8	10
G7610 6-1/4	6	G7610 12-3/8	12
G7610 8-1/8	8	Ø 10, 12 available soon	
G7610 8-1/4	8		



Fittings Mod. G7640

To be assembled with Mod. 7632 02, 7632 03
Y banjo body

Mod.	Ø	Mod.	Ø
G7640 4-1/8	4	G7640 10-1/4	10
G7640 6-1/8	6	Ø 10 available soon	
G7640 6-1/4	6		
G7640 8-1/8	8		
G7640 8-1/4	8		



Fittings Mod. 7632 02

To be assembled with Mod. G7610, G7640
Double stem for banjo body

Mod.
7632 02 1/8
7632 02 1/4



Fittings Mod. 7632 03

To be assembled with Mod. G7610, G7640
Triple stem for banjo body

Mod.
7632 03 1/8
7632 03 1/4



Fittings Mod. G7555

Equal and reducer junction elbow

Mod.	Ø	Mod.	Ø
G7555 4-4	4-4	G7555 10-10	10-10
G7555 4-6	4-6	G7555 12-12	12-12
G7555 6-4	6-4	Ø 10, 12 available soon	
G7555 6-6	6-6		
G7555 6-8	6-8		
G7555 8-6	8-6		
G7555 8-8	8-8		



Fittings Mod. G7435

Center adaptor tee

Mod.	Ø
G7435 4-4	4-4
G7435 6-6	6-6
G7435 8-8	8-8



Fittings Mod. G7445

Lateral adaptor tee

Mod.	Ø
G7445 4-4	4-4
G7445 6-6	6-6
G7445 8-8	8-8



Fittings Mod. G7565

Central adaptor Y

Mod.	Ø
G7565 4-4	4-4
G7565 6-6	6-6
G7565 8-8	8-8



Fittings Mod. G7800

Reducer junction straight

Mod.	Ø	Mod.	Ø
G7800 4-6	4-6	G7800 10-12	10-12
G7800 4-8	4-8	G7800 12-16	12-16
G7800 6-8	6-8	Ø 10, 12 available soon	
G7800 6-10	6-10		
G7800 6-12	6-12		
G7800 8-10	8-10		
G7800 8-12	8-12		



Fittings Mod. G6590

Bulkhead connector
Nickel-plated brass
Thread metric parallel ISO-965

Mod.	Ø	Mod.	Ø
G6590 4	4	G6590 10	10
G6590 6	6	G6590 12	12
G6590 8	8	Ø 10, 12 available soon	



Fittings Mod. G7580

Equal and reducer intermediate straight

Mod.	Ø	Mod.	Ø
G7580 4	4	G7580 6-10	6-10
G7580 4-6	4-6	G7580 8-10	8-10
G7580 4-8	4-8	G7580 8-12	8-12
G7580 6	6	G7580 10	10
G7580 6-8	6-8	G7580 10-12	10-12
G7580 8	8	G7580 12	12
		G7580 12-16	12-16
		G7580 16	16

Ø 10, 12, 16 available soon



Fittings Mod. G7550

Equal and reducer intermediate elbow

Mod.	Ø	Mod.	Ø
G7550 4	4	G7550 8-10	8-10
G7550 4-6	4-6	G7550 10	10
G7550 6	6	G7550 10-12	10-12
G7550 6-8	6-8	G7550 12	12
G7550 8	8	G7550 16	16

Ø 10, 12, 16 available soon



Fittings Mod. G7540

Equal and reducer intermediate tee

Mod.	Ø	Mod.	Ø
G7540 4	4	G7540 10	10
G7540 6	6	G7540 10-10-8	10-10-8
G7540 6-6-4	6-6-4	G7540 12	12
G7540 8	8	G7540 12-12-10	12-12-10
G7540 8-8-4	8-8-4	G7540 16	16
G7540 8-8-6	8-8-6	G7540 16-16-12	16-16-12

Ø 10, 12, 16 available soon



Fittings Mod. G7545

Reducer intermediate multiple tee

Mod.	Ø	Mod.	Ø
G7545 6-4	6-4	G7545 10-6	10-6
G7545 8-4	8-4	G7545 10-8	10-8
G7545 8-6	8-6		

Ø 10 available soon



Fittings Mod. G7560

Equal and reducer intermediate Y

Mod.	Ø	Mod.	Ø
G7560 4	4	G7560 10	10
G7560 6	6	G7560 10-8	10-8
G7560 6-4	6-4	G7560 12	12
G7560 8	8	G7560 12-10	12-10
G7560 8-6	8-6		

Ø 10, 12 available soon



Fittings Mod. G7575

Equal and reducer intermediate double Y

Mod.	Ø
G7575 4	4
G7575 6-4	6-4
G7575 6	6
G7575 8-6	8-6



Accessory Mod. 6900

Plastic male plug

Mod.	Ø
6900 4	4
6900 6	6
6900 8	8
6900 10	10
6900 12	12



Fittings Mod. G6750

Female plug
Nickel-plated brass

Mod.	Ø	Mod.	Ø
G6750 4	4	G6750 10	10
G6750 6	6	G6750 12	12
G6750 8	8		

Ø 10, 12 available soon



Fittings Mod. 7950

Plastic Junction

Mod.	Ø
7950 4	4
7950 6	6
7950 8	8
7950 10	10
7950 12	12



New

GRIPfit push-in fittings Series 7000 - Cooling

Tube external diameters: 6, 8 mm
Fittings threads: ISO-228 BSPP (G1/8, G1/4, G3/8).



- » Resistant to water pressure and erosion
- » Dimensional stability with water contact
- » Resistant to corrosion

Series 7000 Cooling push-in fittings have been designed with a special technopolymer based on bio-sourced renewable raw materials that allow the component to resist water absorption, temperature variations and liquid cooling additives.



GENERAL DATA

Diameters		6mm	8mm	10mm	12mm	16mm
Maximum operating pressure	-20° / +40°	16 bar	16 bar	-	-	-
	+40° / +70°	14 bar	12 bar	-	-	-
	+60° / +100°	12 bar	10 bar	-	-	-
Minimum operating pressure		-0,9 bar				
Temperature		- 20 ÷ + 100 (See characteristics of tubes used)				
Threads		GAS cylindrical ISO-228 BSPP				
Connecting tubes		Polyurethane (PU), Polyethylene (PE), Polyamide (PA), Fluoropolymer (PTFE), Polyester (HY3L), rigid metal pipe with smooth grooved metal end				
Fluid		Industrial water and cooling fluids (for other fluids consult our technicians)				
Materials		Body = Technopolymer (PA11), Brass with chemical nickel plating Button = Technopolymer (PA66) Gripping ring= Stainless steel (AISI 301) Seals = EPDM Thread = Brass with chemical nickel plating				

Fittings Mod. W6512

Male straight connector
Chemical nickel-plated brass
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
W6512 6-1/8	6	W6512 10-1/4	10
W6512 6-1/4	6	W6512 10-3/8	10
W6512 8-1/8	8	W6512 10-1/2	10
W6512 8-1/4	8	W6512 12-3/8	12
W6512 8-3/8	8	W6512 12-1/2	12
		W6512 16-1/2	16
		W6512 16-3/4	16



Ø 10, 12, 16 available soon

Fittings Mod. W6463

Female straight connector
Chemical nickel-plated brass
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
W6463 6-1/8	6	W6463 10-1/4	10
W6463 6-1/4	6	W6463 10-3/8	10
W6463 8-1/8	8	W6463 10-1/2	10
W6463 8-1/4	8	W6463 12-3/8	12
W6463 8-3/8	8	W6463 12-1/2	12
		W6463 16-1/2	16
		W6463 16-3/4	16



Ø 10, 12, 16 available soon

Fittings Mod. W6750

Female plug
Chemical nickel-plated brass

Mod.	Ø	Mod.	Ø
W6750 6	6	W6750 10	10
W6750 8	8	W6750 12	12
		W6750 16	16



Ø 10, 12, 16 available soon

Fittings Mod. W6812

Male straight adaptor
Chemical nickel-plated brass
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
W6812 6-1/8	6	W6512 10-1/4	10
W6812 6-1/4	6	W6512 10-3/8	10
W6812 8-1/8	8	W6512 10-1/2	10
W6512 8-1/4	8	W6512 12-3/8	12
W6512 8-3/8	8	W6512 12-1/2	12
		W6512 16-1/2	16
		W6512 16-3/4	16



Ø 10, 12, 16 available soon

Fittings Mod. W7522

Swivel male elbow
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
W7522 6-M5	6	W7522 10-1/4	10
W7522 6-1/8	6	W7522 10-3/8	10
W7522 6-1/4	6	W7522 10-1/2	10
W7522 8-1/8	8	W7522 12-3/8	12
W7522 8-1/4	8	W7522 12-1/2	12
W7522 8-3/8	8	W7522 16-1/2	16
		W7522 16-3/4	16



Ø 10, 12, 16 available soon

Fittings Mod. W7526

Swivel male long elbow
Thread BSPP ISO-228

Mod.	Ø	Mod.	Ø
W7526 6-1/8	6	W7526 10-1/4	10
W7526 6-1/4	6	W7526 10-3/8	10
W7526 8-1/8	8	W7526 10-1/2	10
W7526 8-1/4	8	W7526 12-3/8	12
W7526 8-3/8	8	W7526 12-1/2	12
		W7526 16-1/2	16
		W7526 16-3/4	16



Ø 10, 12, 16 available soon

Fittings Mod. W7800

Reducer junction straight

Mod.	Ø	Mod.	Ø
W7800 4-6	4-6	W7800 10-12	10-12
W7800 4-8	4-8		Ø 10 available soon
W7800 6-8	6-8		
W7800 6-10	6-10		
W7800 6-12	6-12		
W7800 8-10	8-10		
W7800 8-12	8-12		



Fittings Mod. W7555

Equal junction elbow

Mod.	Ø	Mod.	Ø
W7555 6-6	6-6	W7555 10-10	10-10
W7555 8-8	8-8	W7555 12-12	12-12



Ø 10, 12 available soon

Fittings Mod. W7580

Equal intermediate straight

Mod.	Ø	Mod.	Ø
W7580 6	6	W7580 10	10
W7580 8	8	W7580 12	12
		W7580 16	16



Ø 10, 12, 16 available soon

Fittings Mod. W7550

Equal intermediate elbow

Mod.	Ø	Mod.	Ø
W7550 6	6	W7550 10	10
W7550 8	8	W7550 12	12
		W7550 16	16



Ø 10, 12, 16 available soon

Fittings Mod. W7540

Equal intermediate tee

Mod.	Ø
W7540 6	6
W7540 8	8

Mod.	Ø
W7540 10	10
W7540 12	12
W7540 16	16



Ø 10, 12, 16 available soon

Fittings Mod. W7545

Reducer intermediate multiple tee

Mod.	Ø
W7545 8-6	8

Mod.	Ø
W7545 10-8	10

Ø 10 available soon



Fittings Mod. W7560

Equal intermediate Y

Mod.	Ø
W7560 6	6
W7560 8	8

Mod.	Ø
W7560 10	10

Ø 10 available soon



Accessory Mod. 6900 (see page 348) Plastic male plug - Fittings Mod. 7950 (see page 348) Plastic Junction

New

GRIPfit push-in fittings

Series 7000 - Beverage and Water filtration

Tube external diameters: 4, 6, 8 mm
Fittings threads: ISO-228 BSPP (G1/8, G1/4, G3/8).



- » Bio-sourced materials (composite)
- » Low Lead Brass (CW510L)
- » Easy connection and disconnection

Series 7000 Beverage and Water filtration is a new range of push-in fittings made of reinforced bio-sourced technopolymer and low lead brass. Thanks to the materials and new connection technology, these fittings are ideal for beverage dispensing and water filtration systems.

*Check the NSF certified models here:
<https://www.nsf.org/certified-products-systems>

** NSF169 and NSF61 currently available for brass straight fittings. Available for full range soon.



ISO 14743:2020



Reach



RoHS

Regulation (CE)
n. 2023/2006Regulation (CE)
n. 1935/2004
n. 2023/2006DM174
Drinking Water

NSF169* **



NSF61**

21 CFR
compliance

GENERAL DATA

Diameters		4mm	6mm	8mm
Maximum operating pressure	-20° / +40°	16 bar	16 bar	16 bar
	+40° / +70°	16 bar	14 bar	12 bar
	+70° / +100°	16 bar	12 bar	10 bar
Minimum operating pressure		-0,9 bar		
Temperature		-20 ÷ +100 (See characteristics of tubes used)		
Threads		GAS cylindrical ISO-228 BSPP		
Connecting tube		Polyurethane (PU), Polyethylene (PE), Polyamide (PA), Fluoropolymer (PTFE), Polyester (HY3L), rigid metal pipe with smooth grooved metal end		
Fluid		Drinking and mains water, beverages and gas (for other fluids consult our technicians)		
Materials		Body = Technopolymer (PA11), low lead brass (CW510L) Button = Technopolymer (PA66) Gripping ring = Stainless steel (AISI 301) Seals = EPDM Thread = Low lead brass (CW510L)		

Fittings Mod. B6512

Male straight connector
Low lead brass (CW510L)
Thread BSPP ISO-228

Mod.	Ø
B6512 4-1/8	4
B6512 4-1/4	4
B6512 6-1/8	6
B6512 6-1/4	6
B6512 8-1/8	8
B6512 8-1/4	8
B6512 8-3/8	8



Fittings Mod. B6812

Male straight adaptor
Low lead brass (CW510L)
Thread BSPP ISO-228

Mod.	Ø
B6812 4-1/8	4
B6812 4-1/4	4
B6812 6-1/8	6
B6812 6-1/4	6
B6812 8-1/8	8
B6812 8-1/4	8
B6812 8-3/8	8



Fittings Mod. B7522

Swivel male elbow
Thread BSPP ISO-228

Mod.	Ø
B7522 4-1/8	4
B7522 4-1/4	4
B7522 6-1/8	6
B7522 6-1/4	6
B7522 8-1/8	8
B7522 8-1/4	8
B7522 8-3/8	8



Fittings Mod. B7800

Reducer junction straight

Mod.	Ø
B7800 4-6	4
B7800 4-8	4
B7800 6-8	6



Fittings Mod. B7555

Equal junction elbow

Mod.	Ø
B7555 4-4	4-4
B7555 6-6	6-6
B7555 8-8	8-8



Fittings Mod. B7580

Equal intermediate straight

Mod.	Ø
B7580 4	4
B7580 6	6
B7580 8	8



Fittings Mod. B7550

Equal intermediate elbow

Mod.	Ø
B7550 4	4
B7550 6	6
B7550 8	8



Fittings Mod. B7540

Equal intermediate tee

Mod.	Ø
B7540 4	4
B7540 6	6
B7540 8	8



Fittings Mod. B7560

Equal intermediate Y

Mod.	Ø
B7560 4	4
B7560 6	6
B7560 8	8



Accessory Mod. B6900

Plastic male plug

Mod.	Ø
B6900 4	4
B6900 6	6
B6900 8	8



New

GRIPfit push-in fittings Series 7000 - Medical

Tube external diameters: 4, 6, 8 mm
Fittings threads: ISO-228 BSPP (G1/8, G1/4),
ISO-965 Metric parallel (M5)



- » Oxygen compatibility according to ASTM G93/G93M -19
- » Excellent resistance to humidity absorption
- » Excellent chemical resistance

Series 7000 Medical push-in fittings are designed for the Life Science market, particularly for medical and analytical applications. These fittings are mainly made from bio-based materials and are compatible with most medical gases and fluids.



GENERAL DATA

Diameters	4mm	6mm	8mm	10mm
Maximum operating pressure	-20° / +40°	16 bar	16 bar	16 bar
	+40° / +70°	16 bar	14 bar	12 bar
	+70° / +100°	16 bar	12 bar	10 bar
Minimum operating pressure	-0,9 bar			
Temperature	-20 ÷ +100 (See characteristics of tubes used)			
Threads	GAS cylindrical ISO-228 BSPP ISO-965 Metric parallel			
Connecting tubes	Polyamide (PA 6- PA11 - PA12), Polyurethane (PU), Fluoropolymer (FEP), rigid metal pipe with smooth grooved metal end			
Fluid	Oxygen and medical gases (for other fluids consult our technicians)			
Materials	Body = Technopolymer (PA11), Brass with chemical nickel plating Button = Technopolymer (PA66) Gripping ring = Stainless steel (AISI 301) Seals = EPDM Thread = Brass with chemical nickel plating			

Fittings Mod. W6512 OX1

Male straight connector
Chemical nickel-plated brass
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
W6512 4-M5-OX1	4	W6512 10-1/4-OX1	10
W6512 4-1/8-OX1	4	Ø 10 available soon	
W6512 6-M5-OX1	6		
W6512 6-1/8-OX1	6		
W6512 6-1/4-OX1	6		
W6512 8-1/8-OX1	8		
W6512 8-1/4-OX1	8		



Fittings Mod. W7522 OX1

Swivel male elbow
Thread metric parallel ISO-965 and BSPP ISO-228

Mod.	Ø	Mod.	Ø
W7522 4-M5-OX1	4	W7522 10-1/4-OX1	10
W7522 4-1/8-OX1	4	Ø 10 available soon	
W7522 6-M5-OX1	6		
W7522 6-1/8-OX1	6		
W7522 6-1/4-OX1	6		
W7522 8-1/8-OX1	8		
W7522 8-1/4-OX1	8		



Fittings Mod. W7800 OX1

Reducer junction straight

Mod.	Ø	Mod.	Ø
W7800 4-6-OX1	4	W7800 10-6-OX1	10
W7800 4-8-OX1	4	W7800 10-8-OX1	10
W7800 6-8-OX1	6	Ø 10 available soon	



Fittings Mod. W7555 OX1

Equal junction elbow

Mod.	Ø	Mod.	Ø
W7555 4-4-OX1	4	W7555 10-10-OX1	10
W7555 6-6-OX1	6	Ø 10 available soon	
W7555 8-8-OX1	8		



Fittings Mod. W7580 OX1

Equal intermediate straight

Mod.	Ø	Mod.	Ø
W7580 4-OX1	4	W7580 10-OX1	10
W7580 6-OX1	6	Ø 10 available soon	
W7580 8-OX1	8		



Fittings Mod. W7550 OX1

Equal intermediate elbow

Mod.	Ø	Mod.	Ø
W7550 4-OX1	4	W7550 10-OX1	10
W7550 6-OX1	6	Ø 10 available soon	
W7550 8-OX1	8		



Fittings Mod. W7540 OX1

Equal intermediate tee

Mod.	Ø	Mod.	Ø
W7540 6-OX1	6	W7540 10-OX1	10
W7540 8-OX1	8	Ø 10 available soon	



Fittings Mod. W7560 OX1

Equal intermediate Y

Mod.	Ø	Mod.	Ø
W7560 4-OX1	4	W7560 10-OX1	10
W7560 6-OX1	6	Ø 10 available soon	
W7560 8-OX1	8		



Accessory Mod. B6900

Plastic male plug

Mod.	Ø
B6900 4	4
B6900 6	6
B6900 8	8



Brass rapid push-on fittings for plastic tubes Series 1000

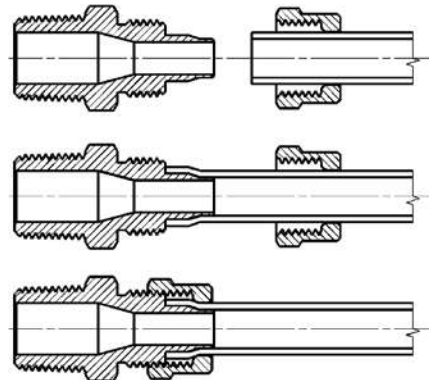
Tube external diameters: 5/3, 6/4, 8/6, 10/8, 12/10, 15/12,5 mm

Fittings threads: metric (M5, M6, M12x1, M12x1,25),
BSP (G1/8, G1/4, G3/8, G1/2), BSPT (R1/8, R1/4, R3/8, R1/2)



Series 1000 rapid push-on fittings can be easily installed.

The push-on locking nuts can be tightened both manually and with a spanner even in case of stiff tubes like the PA or the Hytrel Polyester. The special shape of the guiding cone ensures that the tube cannot be accidentally cut.



GENERAL DATA

Diameters	5/3 - 6/4 - 8/6 - 10/8 - 12/10 - 15/12,5 mm
Threads	GAS conical ISO 7 (BSPT) GAS cylindrical ISO 228 (BSP) M5 - M6 NPT and metric (available on request)
Temperature	-20°C ÷ 80°C NOTE: for a better use of the fitting we recommend to check the tubing specifications
Tube to connect	PA polyethylene braided PVC rilsan PU, Hytrel Polyester
Medium	compressed air low pressure fluids
Materials	body and nut: nickel-plated brass O-ring: NBR thread seals: PTFE, PA, AL
Working pressure	the nominal pressure of the fittings is always higher than the pressure of the tube

Fittings Mod. 1510

Metric-BSPT Male Connector

Mod.	
1510 5/3-1/8	1510 10/8-1/4
1510 6/4-1/8	1510 10/8-3/8
1510 6/4-1/4	1510 10/8-1/2
1510 6/4-3/8	1510 12/10-3/8
1510 6/4-1/2	1510 12/10-1/2
1510 6/4-M12x1,25	1510 15/12,5-1/2
1510 8/6-1/8	
1510 8/6-1/4	
1510 8/6-3/8	
1510 8/6-1/2	
1510 10/8-1/8	



Fittings Mod. 1511

Metric Male Connector Sprint®

Mod.		
1511 5/3-M5	*	1511 10/8-1/8
1511 5/3-M6	*	1511 10/8-1/4
1511 5/3-1/8		1511 10/8-3/8
1511 6/4-M5	*	1511 10/8-1/2
1511 6/4-M6	*	1511 12/10-3/8
1511 6/4-1/8		1511 12/10-1/2
1511 6/4-1/4		1511 15/12,5-1/2
1511 6/4-3/8		
1511 8/6-1/8		
1511 8/6-1/4		
1511 8/6-3/8		

* = with O-Ring



Fittings Mod. 1560

Swivel Male Connector Sprint®

Mod.
1560 6/4-1/8
1560 6/4-1/4
1560 8/6-1/8
1560 8/6-1/4
1560 10/8-1/4
1560 10/8-3/8
1560 12/10-3/8



Fittings Mod. 1463

BSP Female Connector

Mod.	
1463 5/3-1/8	1463 10/8-1/2
1463 6/4-1/8	1463 12/10-3/8
1463 6/4-1/4	
1463 6/4-3/8	
1463 8/6-1/8	
1463 8/6-1/4	
1463 8/6-3/8	
1463 10/8-1/8	
1463 10/8-1/4	
1463 10/8-3/8	



Fittings Mod. 1541

Swivel Male Elbow Sprint®

Mod.
1541 6/4-1/8
1541 6/4-1/4
1541 8/6-1/8
1541 8/6-1/4
1541 10/8-1/4



Fittings Mod. 1500

Fix Metric-BSPT Male Elbow

Mod.	
1500 5/3-1/8	1500 10/8-3/8
1500 6/4-1/8	1500 10/8-1/2
1500 6/4-1/4	1500 12/10-3/8
1500 6/4-3/8	1500 12/10-1/2
1500 6/4-M12x1,25	1500 15/12,5-1/2
1500 8/6-1/8	
1500 8/6-1/4	
1500 8/6-3/8	
1500 8/6-1/2	
1500 10/8-1/8	
1500 10/8-1/4	



Fittings Mod. 1501 5/3-M5

Metric Fix Male Elbow

Mod.
1501 5/3-M5



Fittings Mod. 1493

BSP Female Elbow

Mod.
1493 6/4-1/8
1493 6/4-1/4
1493 8/6-1/8
1493 8/6-1/4
1493 10/8-1/4
1493 12/10-3/8



Fittings Mod. 1431

Swivel Male Tee Sprint®

Mod.
1431 6/4-1/8
1431 6/4-1/4
1431 8/6-1/8
1431 8/6-1/4
1431 10/8-1/4



Fittings Mod. 1410

BSPT Fix Male Tee

Mod.
1410 5/3-1/8
1410 6/4-1/8
1410 6/4-1/4
1410 8/6-1/8
1410 8/6-1/4
1410 10/8-1/8
1410 10/8-1/4
1410 10/8-1/2
1410 12/10-3/8
1410 12/10-1/2
1410 15/12,5-1/2



Fittings Mod. 1420

Lateral BSPT Male Tee

Mod.
1420 5/3-1/8
1420 6/4-1/8
1420 6/4-1/4
1420 8/6-1/8
1420 8/6-1/4
1420 10/8-1/8
1420 10/8-1/4



Fittings Mod. 1610

Single Banjo

Mod.	assembled with Mod.	Mod.	assembled with Mod.
1610 5/3-M5	1631, 1635	1610 10/8-1/8	1635, SCU, SVU, SCO...
1610 5/3-M6	SCU, SVU, SCO...	1610 10/8-1/4	1635, SCU, SVU, SCO...
1610 5/3-1/8	1631, 1635, SCU, SVU, SCO...	1610 10/8-3/8	1635, SCU, SVU, SCO...
1610 6/4-M5	1631, 1635	1610 10/8-1/2	1635
1610 6/4-M6	SCU, SVU, SCO...	1610 12/10-3/8	1635, SCU, SVU, SCO...
1610 6/4-1/8	1631, 1635, SCU, SVU, SCO...	1610 12/10-1/2	1635
1610 6/4-1/4	1631, 1635, SCU, SVU, SCO...	1610 15/12,5-1/2	1635
1610 6/4-3/8	1631, 1635, SCU, SVU, SCO...		
1610 8/6-1/8	1631, 1635, SCU, SVU, SCO...		
1610 8/6-1/4	1631, 1635, SCU, SVU, SCO...		
1610 8/6-3/8	1631, 1635, SCU, SVU, SCO...		



Fittings Mod. 1620

Double Banjo

Mod.	assembled with Mod.
1560 6/4-1/8	1631, 1635
1560 6/4-1/4	1631, 1635, SCU, SVU, SCO...
1560 8/6-1/8	1631, 1635, SCU, SVU, SCO...
1560 8/6-1/4	1631, 1635, SCU, SVU, SCO...
1560 10/8-1/4	1631, 1635, SCU, SVU, SCO...



Fittings Mod. 1631 01

Single Banjo Stem

Mod.
1631 01-M5 *
1631 01-1/8
1631 01-1/4
1631 01-3/8
1631 01-1/2

* = zinc-plated steel



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1635 01

Single Long Banjo Stem

Mod.
1635 01-1/8
1635 01-1/4
1635 01-3/8
1635 01-1/2
1635 01-M12x1,25 *
1635 01-M12x1,5 *

* = models that can be assembled with 1/4 banjo fittings



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1631 02

Double Banjo Stem

Mod.
1631 02-1/8
1631 02-1/4
1631 02-3/8



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1635 02

Double Long Banjo Stem

Mod.
1635 02-1/8
1635 02-1/4
1635 02-3/8
1635 02-1/2



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1631 03

Triple Banjo Stem

Mod.
1631 03-1/8
1631 03-1/4
1631 03-3/8



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1580

Union Connector

Mod.
1580 5/3
1580 6/4
1580 8/6
1580 10/8
1580 12/10
1580 15/12,5
1580 8/6-6/4
1580 10/8-6/4



Fittings Mod. 1590

Bulkhead Union Reducer

Mod.
1590 5/3
1590 6/4
1590 8/6
1590 10/8
1590 12/10
1590 6/4-5/3
1590 8/6-6/4



Assembled with adjustable fittings
Mod. 6610; 6620; 1610; 1620; 2023; 1170

Fittings Mod. 1550

Elbow Connector

Mod.
1550 6/4
1550 8/6
1550 10/8
1550 12/10
1550 15/12,5



Fittings Mod. 1540

Tee Connector

Mod.
1540 5/3
1540 6/4
1540 8/6
1540 10/8
1540 12/10
1540 15/12,5
1540 8/6-6/4
1540 10/8-6/4
1540 10/8-8/6



Fittings Mod. 1600

Cross Connector

Mod.
1600 6/4
1600 8/6



Fittings Mod. 1470

Adaptor with Junction

Mod.
1470 6/4
1470 8/6



Accessories Mod. 2651

Aluminium Washer

Mod.
2651 1/8
2651 1/4
2651 3/8
2651 1/2
2651 1



Accessories Mod. 2661

Plastic Washer

Mod.	
2661 M3	2661 1/4
2661 M5	2661 3/8
2661 M6	2661 1/2
2661 1/8	



Accessories Mod. 2665

Plastic Washer

Mod.
2665 1/8
2665 1/4
2665 3/8
2665 1/2



Accessories Mod. 2669

Plastic Washer

Mod.
2669 1/8
2669 1/4
2669 3/8
2669 1/2



Accessories Mod. 1703

Blocking nut

Mod.
1703 5/3-M7x0,75
1703 6/4-M8x0,75
1703 6/4-M10x1
1703 8/6-M12x1
1703 10/8-M14x1
1703 12/10-M16x1
1703 15/12,5-M20x1



Accessories Mod. 1723

Blocking nut with metal spring

Mod.
1723 6/4-M10x1
1723 8/6-M12x1
1723 10/8-M14x1
1723 12/10-M16x1
1723 15/12,5-M20x1



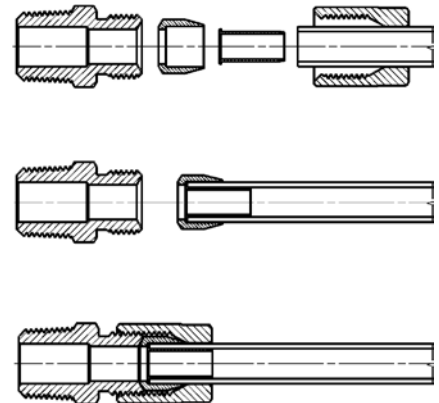
Brass universal nose fittings Series 1000

Nose fittings for plastic, copper and brass tubes: \varnothing 4, 6, 8, 10, 12 mm
Fittings threads: BSP (G1/8, G1/4), BSPT (R1/8, R1/4, R3/8, R1/2)



Series 1000 nose fittings are used with plastic tubes as well as with copper, brass, steel and aluminium tubes. These fittings, which are suitable for several applications, can be used within pneumatic, oil-pressure and low-pressure hydraulic circuits.

The fittings seats, noses and nuts comply with the DIN 3870-3861 standards.



GENERAL DATA

Diameters	\varnothing 4 - 6 - 8 - 10 - 12 mm
Threads	GAS, conical ISO 7 (BSPT) GAS, cylindrical ISO 228 (BSP)
Temperature	see data for tubing used
Connecting tube	annealed copper and plastic tubes (with reinforcement)
Medium	compressed air and other low pressure fluids
Materials	nickel-plated brass
Working pressure	max 40 bar

Fittings Mod. 1050

BSPT Male Connector

Mod.	
1050 4-1/8	1050 12-1/4 *
1050 6-1/8	1050 12-3/8 *
1050 6-1/4	1050 12-1/2 *
1050 8-1/8	* = with bi-conical olive
1050 8-1/4	
1050 8-3/8	
1050 10-1/4	
1050 10-3/8	
1050 10-1/2	



Fittings Mod. 1063

BSP Female Connector

Mod.
1063 4-1/8
1063 6-1/8
1063 6-1/4
1063 8-1/8
1063 8-1/4



Fittings Mod. 1020

BSPT Fix Male Elbow

Mod.	
1020 4-1/8	1020 12-1/4 *
1020 6-1/8	1020 12-3/8 *
1020 6-1/4	1020 12-1/2 *
1020 8-1/8	* = with bi-conical olive
1020 8-1/4	
1020 8-3/8	
1020 10-1/4	
1020 10-3/8	
1020 10-1/2	



Fittings Mod. 1093

BSP Female Elbow

Mod.
1093 4-1/8
1093 6-1/8
1093 6-1/4
1093 8-1/8
1093 8-1/4



Fittings Mod. 1000

BSPT Fix Male Tee

Mod.
1000 4-1/8
1000 6-1/8
1000 8-1/4
1000 10-1/4



Fittings Mod. 1010

Lateral BSPT Fix Male Tee

Mod.
1010 4-1/8
1010 6-1/8
1010 8-1/4
1010 10-1/4



Fittings Mod. 1230

Union Connector

Mod.
1230 4
1230 6
1230 8
1230 10
1230 12 *

* = with bi-conical olive



Fittings Mod. 1250

Bulkhead Connector

Mod.
1250 4
1250 6
1250 8
1250 10



Fittings Mod. 1220

Elbow Connector

Mod.
1220 4
1220 6
1220 8
1220 10
1220 12 *

* = with bi-conical olive



Fittings Mod. 1210

Tee Connector

Mod.
1210 4
1210 6
1210 8
1210 10
1210 12 *

* = with bi-conical olive



Fittings Mod. 1170

Single Banjo

Mod.	assembled with Mod.
1170 6-1/8	1631, 1635, SCU, SVU, SCO...
1170 6-1/4	1631, 1635, SCU, SVU, SCO...
1170 8-1/8	1635, SCU, SVU, SCO...



Accessories Mod. 1303

Blocking nut

Mod.
1303 4-1/8
1303 6-1/8
1303 8-1/4
1303 10-3/8
1303 12-M18x1,5



Accessories Mod. 1310

Olive and Bicone

Mod.
1310 4
1310 6
1310 8
1310 10
1310 12-M18 *

* = with bi-conical olive



Accessories Mod. 1320

Inserts

Mod.
1320 4
1320 6
1320 8
1320 10



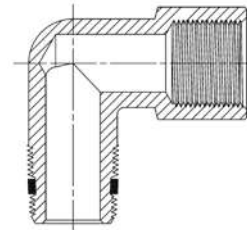
Brass pipe fittings Sprint® Series S2000

Fittings threads: BSP (G1/8, G1/4, G3/8, G1/2), BSPT (R1/8, R1/4, R3/8, R1/2)



Series S2000 pipe fittings are characterized by great reliability of female threads, both BSP and BSPT, with non-flat surfaces. The patented Sprint models are provided with a particular torque system which avoids the use of liquid glues or PTFE band, making thus the mounting quicker.

Thanks to this system the connection and disconnection of the fitting can be repeated several times without compromising the seal on the thread.



GENERAL DATA

Threads	GAS conical ISO 7 (BSPT) GAS cylindrical ISO 228 (BSP)
Temperature	-40°C ÷ 120°C (mod. 2541 and 2612: -20°C ÷ 80°C)
Medium	compressed air and other low pressure fluids
Materials	nickel-plated brass and PTFE
Working pressure	80 bar

Fittings Mod. S2500

BSPT Nipple Sprint®

Mod.
S2500 1/8
S2500 1/4
S2500 3/8
S2500 1/2

**Fittings Mod. S2530**

BSPT Reducing Nipple Sprint®

Mod.
S2530 1/4-1/8
S2530 3/8-1/8
S2530 1/2-1/8
S2530 3/8-1/4
S2530 1/2-1/4
S2530 1/2-3/8

**Fittings Mod. S2520**

BSPT Male Reducing Extension Sprint®

Mod.
S2520 1/8-1/8
S2520 1/8-1/4
S2520 1/8-3/8
S2520 1/4-1/4
S2520 1/4-3/8
S2520 1/4-1/2
S2520 3/8-3/8
S2520 3/8-1/2
S2520 1/2-1/2

**Fittings Mod. S2510**

BSPT Reducing Sprint®

Mod.
S2510 1/8-1/4
S2510 1/8-3/8
S2510 1/4-3/8
S2510 1/4-1/2
S2510 3/8-1/2

**Fittings Mod. 2541**

BSPT Swivel Male Nipple Sprint®

Mod.
2541 1/8-1/8
2541 1/4-1/4
2541 3/8-3/8

**Fittings Mod. S2010**

BSPT Male Elbow Sprint®

Mod.
S2010 1/8
S2010 1/4
S2010 3/8
S2010 1/2

**Fittings Mod. S2020**

Male Female Elbow Sprint®

Mod.
S2020 1/8-1/8
S2020 1/4-1/4
S2020 3/8-3/8
S2020 1/2-1/2

**Fittings Mod. S2050**

M.M.F. Tee Sprint®

Mod.
S2050 1/8-1/8
S2050 1/4-1/4
S2050 3/8-3/8
S2050 1/2-1/2

**Fittings Mod. S2060**

F.M.F. Tee Sprint®

Mod.
S2060 1/8-1/8
S2060 1/4-1/4
S2060 3/8-3/8
S2060 1/2-1/2

**Fittings Mod. S2070**

M.F.F. Tee Sprint®

Mod.
S2070 1/8-1/8
S2070 1/4-1/4
S2070 3/8-3/8
S2070 1/2-1/2

**Fittings Mod. S2080**

Male Tee Sprint®

Mod.
S2080 1/8
S2080 1/4
S2080 3/8
S2080 1/2

**Fittings Mod. S2090**

M.F.M. Tee Sprint®

Mod.
S2090 1/8-1/8
S2090 1/4-1/4
S2090 3/8-3/8
S2090 1/2-1/2

**Fittings Mod. 2612**

BSP Male Plug

Mod.
2612 M5
2612 M7
2612 1/8
2612 1/4
2612 3/8
2612 1/2

**Fittings Mod. S2610**

BSP Male Plug Sprint®

Mod.
S2610 1/8
S2610 1/4
S2610 3/8
S2610 1/2

**Fittings Mod. S2615**

BSPT Male Plug Tapper Sprint®

Mod.
S2615 1/8
S2615 1/4
S2615 3/8



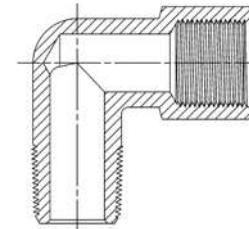
Brass pipe fittings Series 2000

New Models

Fittings threads: metric (M5), BSP (G1/8, G1/4, G3/8, G1/2, G3/4, G1),
BSPT (R1/8, R1/4, R3/8, R1/2, R3/4, R1)



The wide range of Camozzi pipe fittings, which includes straight, L and Tee, Cross piece male or female couplings, guarantees the necessary support during the design of compressed air systems.



GENERAL DATA

Threads	GAS conical ISO 7 (BSPT) GAS cylindrical ISO 228 (BSP)
Temperature	-40°C ÷ 120°C
Medium	compressed air or other low pressure fluids
Materials	nickel-plated brass
Working pressure	80 bar

Fittings Mod. 2500

BSPT Nipple

Mod.
2500 1/8
2500 1/4
2500 3/8
2500 1/2
2500 3/4
2500 1



Fittings Mod. 2501

Metric-BSP Nipple

Mod.
2501 M5
2501 1/8
2501 1/4
2501 3/8
2501 1/2



Fittings Mod. 2510

BSPT Reducing Nipple

Mod.
2510 1/8-1/4
2510 1/8-3/8
2510 1/4-3/8
2510 1/4-1/2
2510 3/8-1/2
2510 1/2-3/4



Fittings Mod. 2520

BSPT Male Reducing Extension

Mod.
2520 1/8-1/8
2520 1/8-1/4
2520 1/8-3/8
2520 1/4-1/4
2520 1/4-3/8
2520 1/4-1/2
2520 3/8-3/8
2520 3/8-1/2
2520 1/2-1/2

**Fittings Mod. 2521**

Metric-BSP Reducing Extension

Mod.
2521 M5-1/8
2521 1/8-1/8
2521 1/8-1/4
2521 1/8-3/8
2521 1/4-1/4
2521 1/4-3/8
2521 1/4-1/2
2521 3/8-3/8
2521 3/8-1/2
2521 1/2-1/2

**Fittings Mod. 2511**

Metric-BSP Reducing Nipple

Mod.
2511 M5-1/8
2511 1/8-1/4
2511 1/8-3/8
2511 1/4-3/8
2511 1/4-1/2
2511 3/8-1/2

**Fittings Mod. 2525**

BSP Male Extension

Mod.
2525 1/8-16
2525 1/8-36
2525 1/4-27
2525 1/4-43

**Fittings Mod. 2530**

BSPT Reducing

Mod.
2530 1/4-1/8
2530 3/8-1/8
2530 1/2-1/8
2530 3/8-1/4
2530 1/2-1/4
2530 1/2-3/8
2530 3/4-3/8
2530 3/4-1/2
2530 1-1/2

**Fittings Mod. 2531**

BSP Reducing

Mod.
2531 1/8-M5 *
2531 1/4-1/8 *
2531 3/8-1/8
2531 3/8-1/4 *
2531 1/2-1/8
2531 1/2-1/4
2531 1/2-3/8 *

* = with through-out thread

**Fittings Mod. 2561**

Mod.
2561 1/4-1/8
2561 3/8-1/4
2561 1/2-3/8
2561 3/4-1/2
2561 1-3/4

**Fittings Mod. 2543**

Sleeve

Mod.
2543 M5
2543 1/8
2543 1/4
2543 3/8
2543 1/2

**Fittings Mod. 2553**

Reducing Sleeve

Mod.
2553 M5-1/8
2553 1/8-1/4
2553 1/8-3/8
2553 1/8-1/2
2553 1/4-3/8
2553 1/4-1/2
2553 3/8-1/2

**Fittings Mod. 2593**

Mod.
2593 M5-M10X1
2593 1/8-M16X1
2593 1/4-M20X1
2593 3/8-M26X1,5
2593 1/2-M28X1,5

**Fittings Mod. 2611**

BSP Male Plug

Mod.
2611 M5
2611 1/8
2611 1/4
2611 3/8
2611 1/2
2611 1

**Fitting Mod. 2610 3/4**

BSPT Male Plug

Mod.
2610 3/4

**Fittings Mod. 2613**

BSP Female Plug

Mod.
2613 1/8
2613 1/4
2613 3/8
2613 1/2

**Fittings Mod. 2601**

Metric-BSP Male Hose Adaptor

Mod.
2601 2-M5
2601 4,5-M5
2601 7-1/8
2601 7-1/4
2601 8-1/8
2601 9-1/8
2601 9-1/4
2601 9-3/8
2601 12-1/4
2601 12-3/8
2601 12-1/2
2601 17-3/8
2601 17-1/2

**Fittings Mod. 2013**

BSPT Female Elbow

Mod.
2013 1/8
2013 1/4
2013 3/8
2013 1/2



Fittings Mod. 2010

BSP Male Elbow

Mod.
2010 1/8
2010 1/4
2010 3/8
2010 1/2
2010 3/4
2010 1



Fittings Mod. 2021 and 2020

Mod. 2021: Metric Male Female Elbow
Mod. 2020: BSPT Male Female Elbow

Mod.
2021 M5-M5
2020 1/8-1/8
2020 1/4-1/4
2020 3/8-3/8
2020 1/2-1/2
2020 3/4-3/4
2020 1-1



Fittings Mod. 2050

M.M.F Tee

Mod.
2050 1/8-1/8
2050 1/4-1/4
2050 3/8-3/8
2050 1/2-1/2



Fittings Mod. 2060

F.M.F Tee

Mod.
2060 1/8-1/8
2060 1/4-1/4
2060 3/8-3/8
2060 1/2-1/2



Fittings Mod. 2080

Male Tee

Mod.
2080 1/8
2080 1/4
2080 3/8
2080 1/2
2080 3/4
2080 1



Fittings Mod. 2070

M.F.F Tee

Mod.
2070 1/8-1/8
2070 1/4-1/4
2070 3/8-3/8
2070 1/2-1/2



Fittings Mod. 2090

M.F.M Tee

Mod.
2090 1/8-1/8
2090 1/4-1/4
2090 3/8-3/8
2090 1/2-1/2
2090 3/4-3/4
2090 1-1



Fittings Mod. 2003

Female Tee

Mod.
2003 1/8
2003 1/4
2003 3/8
2003 1/2



Fittings Mod. 2040

Y.F.M.F.

Mod.
2040 1/8-1/8
2040 1/4-1/4
2040 3/8-3/8
2040 1/2-1/2



Fittings Mod. 2043

Female Y

Mod.
2043 1/8
2043 1/4
2043 3/8
2043 1/2



Fittings Mod. 2033

Female Cross

Mod.
2033 1/8
2033 1/4
2033 3/8



Fittings Mod. 2023

Single Thread Banjo

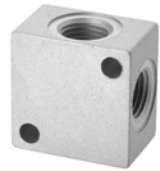
Mod.	assembled with Mod.
2023 M5-M5	1631
2023 M5-M6	SCU, SVU, SCO...
2023 1/8-1/8	1631, 1635, SCU, SVU, SCO...
2023 1/4-1/4	1635, SCU, SVU, SCO...
2023 3/8-3/8	1635, SCU, SVU, SCO...



Accessories Mod. 3033

4 Ways Distribution Block with fixing holes
Material: anodized Aluminium

Mod.
3033 1/8
3033 1/4
3033 3/8
3033 1/2



Accessories Mod. 3043

Manifold with double lateral outlets
Material: anodized Aluminium

Mod.	
3043 1/4-3D-1/8	3043 1/2-5D-3/8
3043 1/4-4D-1/8	3043 1/2-6D-3/8
3043 1/4-5D-1/8	
3043 1/4-6D-1/8	
3043 3/8-3D-1/4	
3043 3/8-4D-1/4	
3043 3/8-5D-1/4	
3043 3/8-6D-1/4	
3043 1/2-3D-3/8	
3043 1/2-4D-3/8	



Accessories Mod. 3053

Manifold with lateral outlets
Material: anodized Aluminium

Mod.	
3053 1/4-3L-1/8	3053 1/2-5L-3/8
3053 1/4-4L-1/8	3053 1/2-6L-3/8
3053 1/4-5L-1/8	
3053 1/4-6L-1/8	
3053 3/8-3L-1/4	
3053 3/8-4L-1/4	
3053 3/8-5L-1/4	
3053 3/8-6L-1/4	
3053 1/2-3L-3/8	
3053 1/2-4L-3/8	



Accessories Mod. 3053

Manifold with lateral outlets
Material: anodized Aluminium, nickel-plated brass and seals in NBR

Mod.
3053 1/4-8L-4
3053 1/4-8L-6
3053 3/8-6L-8
3053 1/2-6L-10



Quick-release couplings Series 5000

Nominal diameters: 5, 7 mm

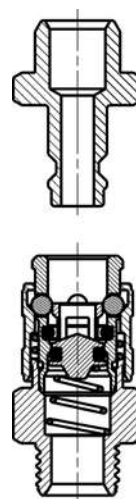
Couplings threads: G1/8, G1/4, G3/8, G1/2

Plastic tubes: 6/4, 8/6, 10/8; rubber hoses: 6x14, 8x17, 10x19, 13x23



Series 5000 quick-release couplings are suitable in situations where, for plant engineering or safety reasons, the connection or disconnection of tubing must be repeated several times. These operations can be performed with no need to release the pressure and therefore a considerable amount of time can be saved.

Series 5000 quick-release couplings with mini-profile DN 5 are compatible with couplings Rectus Series 21 - 90, Legris 21. Series 5000 quick-release couplings with European profile DN 7 are compatible with couplings Cejn Series 320.



GENERAL DATA

Valve group	quick release valve
Construction	poppet type
Mounting	threaded
Thread	GAS cylindrical ISO 228 (BSP)
Materials	nickel-plated brass (hardened galvanized steel only for couplings with an "8" as third number in the code) - NBR seals
Connections	G1/8 - G1/4 - G3/8 - G1/2 for plastic tubes and rubber hose
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	- 0.9 ÷ 12 bar
Nominal pressure	6 bar
Nominal diameter	5 or 7 mm
Fluid	compressed air and other low pressure fluids

Fittings Mod. 5051 Series Mini and Mod. 5081 European Standard

BSP Male Quick Coupling

Mod.
5051 1/8
5051 1/4
5081 1/4
5081 3/8
5081 1/2



Fittings Mod. 5052 Series Mini and Mod. 5082 European Standard

BSP Male Quick Coupling Bulkhead

Mod.
5052 1/8
5052 1/4
5082 1/4



Fittings Mod. 5053 Series Mini and Mod. 5083 European Standard

BSP Female Quick Coupling

Mod.
5053 1/8
5053 1/4
5083 1/4
5083 3/8
5083 1/2



Fittings Mod. 5054 Series Mini and Mod. 5084 European Standard

Quick Coupling Push-on

Mod.
5054 6/4
5054 8/6
5084 8/6
5084 10/8



Fittings Mod. 5055 Series Mini

Quick Coupling Bulkhead Push-on

Mod.
5055 6/4
5055 8/6



Fittings Mod. 5056 Series Mini and Mod. 5086 European Standard

Quick Coupling Hose Adapter

Mod.
5056 06
5056 09
5086 09
5086 12



Fittings Mod. 5057 Series Mini and Mod. 5087 European Standard

Quick Coupling Hose Connector

Mod.
5057 6x14
5087 6x14
5087 8x17
5087 10x19
5087 13x23



Fittings Mod. 5058 Series Mini and Mod. 5088 European Standard

Quick Coupling with Spring

Mod.
5058 6/4
5058 8/6
5088 8/6
5088 10/8



Fittings Mod. 5150 Mini Profile and Mod. 5180 European Profile

Male Connector

Mod.
5150 1/8
5150 1/4
5180 1/4
5180 3/8
5180 1/2



Fittings Mod. 5350 Mini Profile and Mod. 5380 European Profile

Female Connector

Mod.
5350 1/8
5350 1/4
5380 1/4
5380 3/8
5380 1/2



Fittings Mod. 5450 Mini Profile and Mod. 5480 European Profile

Push-on Connector

Mod.
5450 6/4
5450 8/6
5480 8/6
5480 10/8



Fittings Mod. 5650 aMini Profile and Mod. 5680 European Profile

Connector with Barb

Mod.
5650 06
5650 09
5680 06
5680 09
5680 12



Fittings Mod. 5750 Mini Profile and Mod. 5780 European Profile

Hose Connector

Mod.
5750 6x14
5780 6x14
5780 8x17
5780 13x23



Fittings Mod. 5850 Mini Profile and Mod. 5880 European Profile

Connector with Spring

Mod.
5850 6/4
5850 8/6
5880 8/6
5880 10/8



Quick-release couplings for the conditioning of moulds for plastic

Series 5000L and 5000LT

Nominal diameters: 5, 7 mm

Couplings threads: G1/8, G1/4, G3/8



The Series 5000L and 5000LT couplings have been designed to connect tubes for water, air or oil, used within plastic injection and die casting moulds.

The Series 5000L and 5000LT couplings provide a quick connection and disconnection method for the replacement of heating and conditioning tubes directed towards the mould, as well as tubes coming from water collectors or sources.

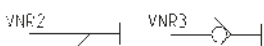
GENERAL DATA

Valve group	quick-release valve
Construction	poppet
Mounting	by means of threading
Threadings	GAS cylindrical ISO 228 (BSP)
Threads	G1/8 - G1/4 - G3/8
Materials	Internal/external parts in brass Springs and balls in stainless steel Seals in FKM
Operating temperature	-15°C ÷ 140°C (200°C with oil)
Operating pressure	-0.9 ÷ 12 bar
Nominal pressure	6 bar
Nominal diameter	ø5 - ø7
Media	water, air and oil

Fittings Mod. 5053L and 5053LT

BSP female quick-coupling

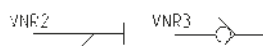
Mod.	Symbol
5053L 1/8	VNR3
5053L 1/4	VNR3
5053LT 1/8	VNR2
5053LT 1/4	VNR2



Fittings Mod. 5083L and 5083LT

BSP female quick-coupling

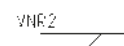
Mod.	Symbol
5083L 1/4	VNR3
5083L 3/8	VNR3
5083LT 1/4	VNR2
5083LT 3/8	VNR2



Fittings Mod. 5150L and 5180L

Male connector

Mod.
5150L 1/8
5150L 1/4
5180L 1/4
5180L 3/8



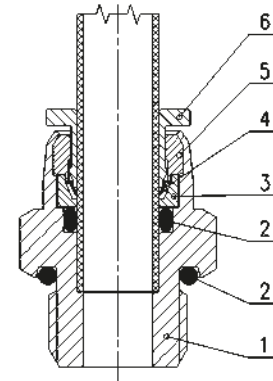
Super-rapid fittings in stainless steel 316L Series X6000

Tube external diameters: 4, 6, 8, 10, 12 mm
Fittings threads: BSP (G1/8, G1/4, G3/8, G1/2),
BSPT (R1/8, R1/4, R3/8, R1/2)



Series X6000 fittings have been designed to offer versatility and ease of installation without any compromise in quality or performance. They are suitable for applications in the pneumatics, fluids, chemical, medical, food and packaging industries.

Series X6000 fittings are practical and safe and allow the connection of fluids even in aggressive environments. The collet ensures excellent grip between the fitting and tubing.



GENERAL DATA

Diameters	ø 4 - 6 - 8 - 10 - 12 mm	
Threads	GAS conical ISO 7 (BSPT) GAS cylindrical ISO 228 (BSP)	
Temperature	-15°C ÷ 150°C NOTE: for a better use of the fitting we recommend to check the tubing specifications.	
Tube to connect	Polyamide (PA) 6 - 11 - 10.12 - 12, Polyurethane (PU), Polyethylene (PE), PTFE	
Medium	compressed air and drinking water. For other fluids, please contact our technicians.	
Materials	1 = Body	Stainless steel 316L
	2 = Seals	FKM Alimentary
	3 = Supporting ring	Stainless steel 316L
	4 = Clamping gripper	Stainless steel 301
	5 = Locking bushing	Stainless steel 316L
	6 = Release bushing	Stainless steel 316L
Working pressure	max 18 bar (see tubing)	

Fittings Mod. X6510

BSPT Male Connector

Mod.	
X6510 4-1/8	X6510 12-3/8
X6510 4-1/4	X6510 12-1/2
X6510 6-1/8	
X6510 6-1/4	
X6510 8-1/8	
X6510 8-1/4	
X6510 10-1/4	
X6510 10-3/8	
X6510 10-1/2	
X6510 12-1/4	



Fittings Mod. X6512

BSPP Male Connector

Mod.	
X6512 4-1/8	X6512 12-3/8
X6512 4-1/4	X6512 12-1/2
X6512 6-1/8	
X6512 6-1/4	
X6512 8-1/8	
X6512 8-1/4	
X6512 10-1/4	
X6512 10-3/8	
X6512 10-1/2	
X6512 12-1/4	



Fittings Mod. X6500

BSPT Male Elbow

Mod.
X6500 4-1/8
X6500 6-1/8
X6500 6-1/4
X6500 8-1/8
X6500 8-1/4
X6500 10-1/4
X6500 10-3/8
X6500 12-1/4
X6500 12-3/8



Fittings Mod. X6520

BSPT Swivel Male Elbow

Mod.
X6520 4-1/8
X6520 4-1/4
X6520 6-1/8
X6520 6-1/4
X6520 8-1/8
X6520 8-1/4
X6520 10-1/4
X6520 10-3/8
X6520 12-1/4
X6520 12-3/8
X6520 12-1/2



Fittings Mod. X6522

BSPP Swivel Male Elbow

Mod.
X6522 4-1/8
X6522 4-1/4
X6522 6-1/8
X6522 6-1/4
X6522 8-1/8
X6522 8-1/4
X6522 10-1/4
X6522 10-3/8
X6522 12-1/4
X6522 12-3/8
X6522 12-1/2



Fittings Mod. X6430

BSPT Swivel Male Tee

Mod.
X6430 4-1/8
X6430 4-1/4
X6430 6-1/8
X6430 6-1/4
X6430 8-1/8
X6430 8-1/4
X6430 10-1/4
X6430 10-3/8
X6430 12-1/4
X6430 12-3/8
X6430 12-1/2



Fittings Mod. X6432

BSPP Swivel Centre Tee

Mod.
X6432 4-1/8
X6432 4-1/4
X6432 6-1/8
X6432 6-1/4
X6432 8-1/8
X6432 8-1/4
X6432 10-1/4
X6432 10-3/8
X6432 12-1/4
X6432 12-3/8
X6432 12-1/2



Fittings Mod. X6580

Union Connector

Mod.
X6580 4
X6580 6
X6580 8
X6580 10
X6580 12



Fittings Mod. X6550

Elbow connector

Mod.
X6550 4
X6550 6
X6550 8
X6550 10
X6550 12



Fittings Mod. X6540

Tee Connector

Mod.
X6540 4
X6540 6
X6540 8
X6540 10
X6540 12



Fittings Mod. X6590

Bulkhead Union Connector

Mod.
X6590 4
X6590 6
X6590 8
X6590 10
X6590 12



Fittings Mod. X6800

Reducer Tube/Stem

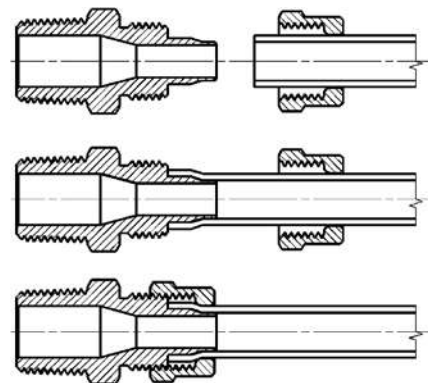
Mod.
X6800 4-6
X6800 4-8
X6800 6-8
X6800 6-10
X6800 6-12
X6800 8-10
X6800 8-12
X6800 10-12



Rapid push-on fittings in 316L stainless steel Series X1000



Series X1000 rapid push-on fittings can be easily installed. The push-on locking nuts can be tightened both manually and with a spanner even in case of stiffer tubes like PA or Hytrel Polyester. The shape of the special guiding cone ensures that the tube cannot be accidentally cut.



GENERAL DATA

Diameters	6/4 - 8/6 - 10/8 - 12/10
Threads	GAS conical ISO 7 (BSPT)
Temperature	-40°C ÷ +180°C NOTE: for a better use of the fitting we recommend to check the tubing specifications
Tube to connect	Polyamide (PA), Polyurethane (PU), Polyethylene (PE), PTFE, FEP, Hytrel Polyester
Medium	all fluids compatible with the fitting component materials
Materials	Body: stainless steel 316L Nut: stainless steel 316L
Working pressure	the nominal pressure of the fittings is always higher than the pressure of the tube

Fittings Mod. X1510

BSPT Male Connector

Mod.

X1510 6/4-1/8
X1510 6/4-1/4
X1510 8/6-1/8
X1510 8/6-1/4
X1510 8/6-3/8
X1510 10/8-1/4
X1510 10/8-3/8
X1510 10/8-1/2
X1510 12/10-1/4
X1510 12/10-3/8
X1510 12/10-1/2



Fittings Mod. X1500

BSPT Male Elbow

Mod.

X1500 6/4-1/8
X1500 6/4-1/4
X1500 8/6-1/8
X1500 8/6-1/4
X1500 8/6-3/8
X1500 10/8-1/4
X1500 10/8-3/8
X1500 10/8-1/2
X1500 12/10-3/8
X1500 12/10-1/2



Fittings Mod. X1580

Union Connector

Mod.

X1580 6/4
X1580 8/6
X1580 10/8
X1580 12/10



Fittings Mod. X1590

Bulkhead Union Connector

Mod.

X1590 6/4
X1590 8/6
X1590 10/8
X1590 12/10



Fittings Mod. X1550

Elbow Connector

Mod.

X1550 6/4
X1550 8/6
X1550 10/8
X1550 12/10



Fittings Mod. X1540

Tee Connector

Mod.

X1540 6/4
X1540 8/6
X1540 10/8
X1540 12/10



Accessories Mod. X1703

Blocking nut

Mod.

X1703 6/4
X1703 8/6
X1703 10/8
X1703 12/10

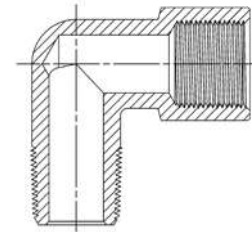


Adaptors in 316L stainless steel Series X2000



Series X2000 adaptors in AISI 316L stainless steel are available in several configurations to meet the customers' needs in terms of reliability and adaptability.

They can be used in pneumatic, oil-pressure (at low pressure) and hydropneumatic systems and can be employed in many sectors including the food, chemical and medical industries.



GENERAL DATA

Threads	GAS conical ISO7 (BSPT) Gas cylindrical ISO 228 (BSPP) NPT
Temperature	-50°C ÷ +250°C -15°C ÷ +180°C (X2612 - X2612 EH)
Medium	all fluids compatible with the fitting component materials
Materials	316L stainless steel
Working pressure	-0.9 / 120 bar

Fittings Mod. X2500

BSPT, NPT and BSPP Nipple

Mod.
X2500 1/8
X2500 1/4
X2500 3/8
X2500 1/2
X2500 3/4
X2500 1/8PT
X2500 1/4PT
X2500 3/8PT
X2500 1/2PT
X2500 1/8-1/8PT
X2500 1/4-1/4PT
X2500 3/8-3/8PT
X2500 1/2-1/2PT
X2500 3/4-3/4PT



Fittings Mod. X2510

BSPT and NPT Reducing Nipple

Mod.
X2510 1/8-1/4
X2510 1/8-3/8
X2510 1/4-3/8
X2510 1/4-1/2
X2510 3/8-1/2
X2510 1/2-3/4
X2510 1/8PT-1/4PT
X2510 1/8PT-3/8PT
X2510 1/4PT-3/8PT
X2510 1/4PT-1/2PT
X2510 3/8PT-1/2PT



Fittings Mod. X2520

Enlarging Extension

Mod.
X2520 1/8-1/4
X2520 1/8-3/8
X2520 1/4-3/8
X2520 1/4-1/2
X2520 3/8-1/2
X2520 1/2-3/4



Fittings Mod. X2530

Reducer/Converter

Mod.	
X2530 1/8-M5	X2530 1/2PT-1/4PT
X2530 1/4-1/8	X2530 1/2PT-3/8PT
X2530 3/8-1/8	X2530 1/8PT-1/8
X2530 3/8-1/4	X2530 1/4PT-1/4
X2530 1/2-1/4	X2530 3/8PT-3/8
X2530 1/2-3/8	X2530 1/2PT-1/2
X2530 3/4-1/2	X2530 1/8-1/8PT
X2530 1/4PT-1/8PT	X2530 1/4-1/4PT
X2530 3/8PT-1/8PT	X2530 3/8-3/8PT
X2530 3/8PT-1/4PT	X2530 1/2-1/2PT

**Fittings Mod. X2543**

BSPP and NPT Sleeve

Mod.
X2543 1/8
X2543 1/4
X2543 3/8
X2543 1/2
X2543 3/4
X2543 1/8PT-1/8PT
X2543 1/4PT-1/4PT
X2543 3/8PT-3/8PT
X2543 1/2PT-1/2PT

**Fittings Mod. X2593**

BSPP and NPT Bulkhead connector

Mod.
X2593 1/8
X2593 1/4
X2593 3/8
X2593 1/2
X2593 3/4
X2593 1
X2593 1/8PT-1/8PT
X2593 1/4PT-1/4PT
X2593 3/8PT-3/8PT
X2593 1/2PT-1/2PT

**Fittings Mod. X2600**

BSPT Male Hose Adaptor

Mod.	
X2600 6-1/8	X2600 12-1/2
X2600 7-1/8	X2600 14-3/8
X2600 7-1/4	X2600 14-1/2
X2600 8-1/4	X2600 16-3/8
X2600 9-1/4	X2600 16-1/2
X2600 9-3/8	X2600 18-1/2
X2600 10-1/4	X2600 18-3/4
X2600 10-3/8	X2600 20-1/2
X2600 10-1/2	X2600 20-3/4
X2600 12-1/4	X2600 25-3/4
X2600 12-3/8	

**Fittings Mod. X2612 EH**BSPP Male Plug
External hexagon, o-ring in FKM

Mod.
X2612 1/8-EH
X2612 1/4-EH
X2612 3/8-EH
X2612 1/2-EH

**Fittings Mod. X2612**BSPP Male Plug
Internal hexagon, o-ring in FKM

Mod.
X2612 1/8
X2612 1/4
X2612 3/8
X2612 1/2

**Fittings Mod. X2615**

BSPT Headless Male Plug

Mod.
X2615 1/8
X2615 1/4
X2615 3/8
X2615 1/2

**Fittings Mod. X2013**

BSPP Female Elbow

Mod.
X2013 1/8
X2013 1/4
X2013 3/8
X2013 1/2

**Fittings Mod. X2003**

BSPP Female Tee

Mod.
X2003 1/8
X2003 1/4
X2003 3/8
X2003 1/2

**Fittings Mod. X2020**

BSPT Female Male Elbow

Mod.
X2020 1/8-1/8
X2020 1/4-1/4
X2020 3/8-3/8
X2020 1/2-1/2

**Fittings Mod. X2060**

BSPT Male Branch Tee

Mod.
X2060 1/8-1/8
X2060 1/4-1/4
X2060 3/8-3/8
X2060 1/2-1/2

**Fittings Mod. X2070**

BSPT Male Run Tee

Mod.
X2070 1/8-1/8
X2070 1/4-1/4
X2070 3/8-3/8
X2070 1/2-1/2

**Accessories Mod. X3033**

4 Ways Distribution Block with fixing holes

Mod.
X3033 1/8
X3033 1/4
X3033 3/8
X3033 1/2



Mini ball valves for pneumatics and industrial fluids Series 29

Tube external diameters: 4, 6 and 8mm
Threads: BSP (G1/8, G1/4, G3/8, G1/2, R1/8, R1/4)



The mini ball valves are used to open or close air or fluids in industrial applications characterised by extremely reduced spaces.

The miniaturised dimensions and light weight of Series 29 enable a quick installation at any point of the system, also thanks to the push-in connection or thread. The design and materials used make this series particularly suitable for compressed air systems as well as hydraulic circuits and systems.

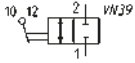
GENERAL DATA

Function	2/2-way, 3/2-way with exhaust
Operation	90° lever rotation
Ports	G1/8, G1/4, G3/8, G1/2, R1/8, R1/4
Tube diameter	Ø 4, 6, 8 mm
Orifice diameter	6 mm (MINI version) 8 mm bis 10 mm (ECO, butterfly and 3/2-way with exhaust)
Operating pressure	0 ÷ 10 bar
Operating temperature	-10 °C ÷ 90 °C
Materials	valve body, rod, collet: nickel plated brass; ball: nickel plated brass; ball seals: PTFE rod sealing ring: FKM; Lever: Glass charged PA66
Surface finishing	chrome plated, sandblasted and chrome plated (only butterfly version)
Medium	compressed air, inert gases, water, oil - other on demand

Mini ball valves, MINI version - Mod. 2948

2/2 in-line with Push-in Collet

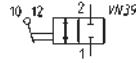
Mod.
2948 4
2948 6
2948 8



Mini ball valves, MINI version - Mod. 2947

2/2 in-line with Push-in Collet, Male BSPT Threads

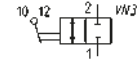
Mod.
2947 1/8-4
2947 1/8-6
2947 1/8-8
2947 1/4-4
2947 1/4-6
2947 1/4-8



Mini ball valves, MINI version - Mod. 2946

2/2 in-line with Push-in Collet, Female BSPP Threads

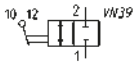
Mod.
2946 1/8-4
2946 1/8-6
2946 1/8-8
2946 1/4-4
2946 1/4-6
2946 1/4-8



Mini ball valves, MINI version - Mod. 2943

2/2 in-line, Female-Female BSPP Threads

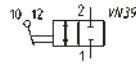
Mod.
2943 1/8
2943 1/4



Mini ball valves, MINI version - Mod. 2944

2/2 in-line, Male BSPT-Female BSPP Threads

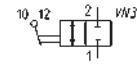
Mod.
2944 1/8-1/8
2944 1/4-1/4



Mini ball valves, MINI version - Mod. 2945

2/2 in-line, Male BSPT Threads

Mod.
2945 1/8
2945 1/4



Colored Interchangeable Clips Mod. C29

For Mini Version only

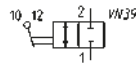
Mod.
C29-GREY
C29-RED
C29-BLUE



Mini ball valves, ECO version - Mod. 2953

2/2 in-line, Female-Female BSPP Threads

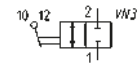
Mod.
2953 1/4
2953 3/8
2953 1/2



Mini ball valves, ECO version - Mod. 2954

2/2 in-line, Male BSPP-Female BSPP Threads

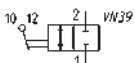
Mod.
2954 1/4-1/4
2954 3/8-3/8
2954 1/2-1/2



Mini ball valves, Butterfly version - Mod. 2963

2/2 in-line, Female-Female BSPP Threads

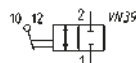
Mod.
2963 1/4
2963 3/8
2963 1/2



Mini ball valves, Butterfly version - Mod. 2964

2/2 in-line, Male BSPP-Female BSPP Threads

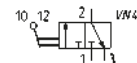
Mod.
2964 1/4-1/4
2964 3/8-3/8
2964 1/2-1/2



Mini ball valves, 3/2-way version - Mod. 2973

3/2 in-line, Female BSPP-Female BSPP Threads

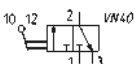
Mod.
2973 1/4
2973 3/8
2973 1/2



Mini ball valves, 3/2-way version - Mod. 2974

3/2 in-line, Male BSPP-Female BSPP Threads

Mod.
2974 1/4-1/4
2974 3/8-3/8
2974 1/2-1/2



Mini ball valves in 316 stainless steel Series X29

- » Compact dimensions
- » Maximum flow capability
- » Easy-to-operate lever



These mini ball valves are used to open or close air or fluid flows in industrial applications with aggressive fluids or gases and where space is extremely limited.

The miniaturised dimensions and light weight of Series X29 enable an easy installation at any point of the system, also thanks to the threaded connection.

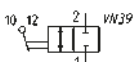
GENERAL DATA

Function	2/2-way
Operation	90° lever rotation
Threads	G1/4, G3/8, G1/2, R1/4, R3/8, R1/2
Orifice diameter	from 7 mm to 9.2 mm
Operating pressure	0 ÷ 10 bar
Operating temperature	-15 °C ÷ 80 °C
Materials	valve body, rod, ball: 316 stainless steel; ball seals: PTFE; rod sealing ring: FKM; Lever: Aluminum
Medium	compressed air, inert gases, water, oil and all fluids compatible with these mini ball valves component materials

Mini ball valves Mod. X2943

2/2 in-line, Female-Female BSPP Threads

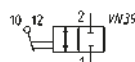
Mod.
X2943 1/4
X2943 3/8
X2943 1/2



Mini ball valves Mod. X2944

2/2 in-line, Male BSPT-Female BSPP Threads

Mod.
X2944 1/4-1/4
X2944 3/8-3/8
X2944 1/2-1/2



Fittings and accessories for applications of medical gases

Series OX1

Tube external diameters: 4, 6 and 8 mm

Fittings threads: metric (M5), BSP (G1/8, G1/4), BSPT (R1/8, R1/4)



Series OX1 fittings are designed for the Life Science market, particularly for medical and analytical applications. Equipment manufacturers of Ventilators, Anaesthesia devices, Oxygen Concentrators, Mass Spectrometry or Bio Medical analysers have qualified the Series OX1 fittings for many years.

Series OX1 Products Cleanliness level:
Non volatile residue equal to or less than 550 mg/m²

Level Series OX1: ultrasonic cleaning of components, inspection with UV black light, lubrication with a specific grease suitable to be used with oxygen.

Series 6000 OX1 push in fittings: Series 6000 OX1 super-rapid fittings have been designed with a special collet which provides an homogeneous tight on the whole surface of plastic tubes, thus ensuring high reliability and a long service life, also after connections and disconnections of the tube are repeated several times.

Series VNR OX1 unidirectional valves: They are available with Integrated Push-in Fittings. Thanks to their construction they operate at low pressure.

Series 2000 OX1 brass pipe fittings: The wide range of Camozzi pipe fittings, which includes straight, L and Tee, male or female couplings, guarantees the necessary support during the design of medical and analytical systems.

GENERAL DATA

Series 6000	
Diameters	ø 4, 6 and 8mm
Threads	GAS cylindrical ISO 228 (BSP); M5
Temperature	-15 °C ÷ 80 °C (see the technical data of tubing used)
Tube to connect	Polyamide (PA) 6 - 11 - 12, Polyurethane (PU), Fluoropolymer (FEP)
Fluid	Oxygen, Medical Gases, Compressed Air or Other low pressure fluids
Materials	Standard models: body and collet in nickel-plated brass, O-ring with FKM with Oxygen suitable grease
Working pressure	Standard models: min -0,9 bar - max 16 bar (see tubing)
Series VNR	
Valve group	automatic valves
Construction	poppet-type
Materials	brass body - stainless steel spring - FKM seals
Mounting	in any position
Dimensions tube version	Ø4; Ø6; Ø8
Operating temperature	0 °C ÷ 80 °C
Fluid	Oxygen, Medical Gases, Compressed Air or Other low pressure fluids
Series 2000	
Threads	GAS conical ISO 7 (BSPT) - GAS cylindrical ISO 228 (BSP)
Temperature	-40 °C ÷ 120 °C
Fluid	Oxygen, Medical Gases, Compressed Air or Other low pressure fluids
Materials	nickel-plated brass
Working pressure	80 bar

Fittings Mod. 6512-OX1

Metric-BSP Male Connector

Mod.
6512 4-M5-OX1
6512 4-1/8-OX1
6512 6-M5-OX1
6512 6-1/8-OX1
6512 6-1/4-OX1
6512 8-1/8-OX1
6512 8-1/4-OX1



Fittings Mod. 6700-OX1

Cartridge

Mod.
6700 4-OX1
6700 6-OX1



Fittings Mod. 6463-OX1

Metric-BSP Female Connector

Mod.
6463 4-1/8-OX1
6463 6-1/8-OX1
6463 6-1/4-OX1



Fittings Mod. 6522-OX1

Metric-BSP Swivel Male Elbow

Mod.
6522 4-M5-OX1
6522 4-1/8-OX1
6522 6-M5-OX1
6522 6-1/8-OX1
6522 6-1/4-OX1
6522 8-1/8-OX1
6522 8-1/4-OX1



Fittings Mod. 6590-OX1

Bulkhead Connector

Mod.
6590 4-OX1
6590 6-OX1



Fittings Mod. 6580-OX1

Union Connector

Mod.
6580 4-OX1
6580 6-OX1
6580 8-OX1



Fittings Mod. 6550-OX1

Elbow connector

Mod.
6550 4-OX1
6550 6-OX1



Fittings Mod. 6540-OX1

Tee Connector

Mod.
6540 4-OX1
6540 6-OX1



Fittings Mod. 6560-OX1

Y Union

Mod.
6560 4-OX1
6560 6-OX1



Fittings Mod. 6750-OX1

Female Plug

Mod.
6750 4-OX1
6750 6-OX1



Fittings Mod. 6800-OX1

Reducer Junction

Mod.
6800 4-6-OX1
6800 4-8-OX1
6800 6-8-OX1



Fittings Mod. 6555-OX1

Junction Elbow

Mod.
6555 6-6-OX1



Accessory Mod. 6900-OX1

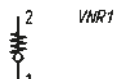
Plastic Male Plug

Mod.
6900 4-OX1
6900 6-OX1



Series VNR unidirectional valves

Mod.
6580 4-VNR-OX1
6580 6-VNR-OX1
6580 8-VNR-OX1



Fittings Mod. 2500-OX1

BSPT Nipple

Mod.
2500 1/8-OX1
2500 1/4-OX1



Fittings Mod. 2501-OX1

Metric-BSP Nipple

Mod.
2501 1/8-OX1
2501 1/4-OX1



Fittings Mod. 2510-OX1

BSPT Reducing Nipple

Mod.
2510 1/8-1/4-OX1



Fittings Mod. 2531-OX1

BSP Reducing

Mod.
2531 1/8-M5-OX1
2531 1/4-1/8-OX1



Fittings Mod. 2543-OX1

Sleeve

Mod.
2543 M5-OX1
2543 1/8-OX1
2543 1/4-OX1



Fittings Mod. 2611-OX1

BSP Male Plug

Mod.
2611 M5-OX1
2611 1/8-OX1
2611 1/4-OX1



Fittings Mod. 2013-OX1

BSP Female Elbow

Mod.
2013 1/8-OX1
2013 1/4-OX1



Fittings Mod. 2021-OX1 and 2020-OX1

Mod. 2021-OX1: Metric Male Female Elbow
Mod. 2020-OX1: BSPT Male Female Elbow

Mod.
2020 1/8-1/8-OX1
2020 1/4-1/4-OX1



Fittings Mod. 2003-OX1

Female Tee

Mod.
2003 1/8-OX1
2003 1/4-OX1



Fittings Mod. 2043-OX1

Female Y

Mod.
2043 1/8-OX1
2043 1/4-OX1



Tubing, spirals and accessories

Series T, MPL, PNZ

Tubes: reinforced PVC, Polyamide (PA) 12, Hytel Polyester, Polyethylene (PE), Polyurethane (PU).
Diameters: 4/2, 5/3, 6/4, 8/6, 10/8, 12/10, 15/12,5 mm



Camozzi offers a range of tubes and spirals with specific features which are suitable for several technical requirements. Thanks to high-quality raw materials and with a low specific weight, these products are very small and lightweight. They also show high resistance against stress and flexural vibrations.

The high specularity of internal surfaces for the fluid passage (roughness of about 6 micron) allows to reduce the loosening of loads and to reach very high flows with same diameters. Technopolymers used are particularly resistant to aging, thus ensuring the product a very long life.

Tubes Mod. PV

Tubes in reinforced PVC
Standard colour: Blue

Mod.
PV 6/4
PV 8/6
PV 10/8
PV 12/10
PV 15/12,5



Tubes Mod. TRN

Tubes in polyamide PA12
Standard colour: Neutral
Colours available on request:
Blue - Red - Green - Black - Yellow

Mod.
TRN 4/2
TRN 5/3
TRN 6/4
TRN 8/6
TRN 10/8
TRN 12/10



Tubes Mod. TRH

Tubes in Hytrel polyester
Standard colour: Blue
Colours available on request:
Red - Green - Black - Yellow - White

Mod.
TRH 4/2-Z
TRH 5/3-Z
TRH 6/4-Z
TRH 8/6-Z
TRH 10/8-Z
TRH 12/10-Z



Tubes Mod. TPE

Tube in low density polyethylene
Standard colour: Neutral
Colours available on request: Blue

Mod.
TPE 5/3
TPE 6/4
TPE 8/6
TPE 10/8



Tubes Mod. TPC

Tubes in Polyurethane 98 Shore
Standard colour: Grey RAL 7012

Mod.
TPC 4/2
TPC 6/4
TPC 8/6
TPC 10/8
TPC 12/8



Tubes Mod. TSP

Spiral in Rilsan (PA 11)
Standard colour: Blue
Other colours available on request

Mod.
TSP 6/4
TSP 8/6
TSP 10/8
TSP 12/10



Plastic tubes clamps Mod. MPL

Colour: Blue

Mod.
MPL-4
MPL-6
MPL-8
MPL-10
MPL-12
MPL-14



Tube cutter tool Mod. PNZ... and PNZP-12

Tubes cutter Mod. PNZ...:
replacement blades can be ordered separately.
Tubes cutter Mod. PNZP-12: plastic.

Mod.	
PNZ-12	able to cut tubes with \emptyset up to 12 mm
PNZ-25	able to cut tubes with \emptyset up to 25 mm
PNZP-12	able to cut tubes with \emptyset up to 12 mm



Grooving tool for metallic tubes

Mod.
8TRT 4
8TRT 6
8TRT 8
8TRT 10
8TRT 12
8TRT 14
8TRT 16

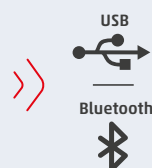
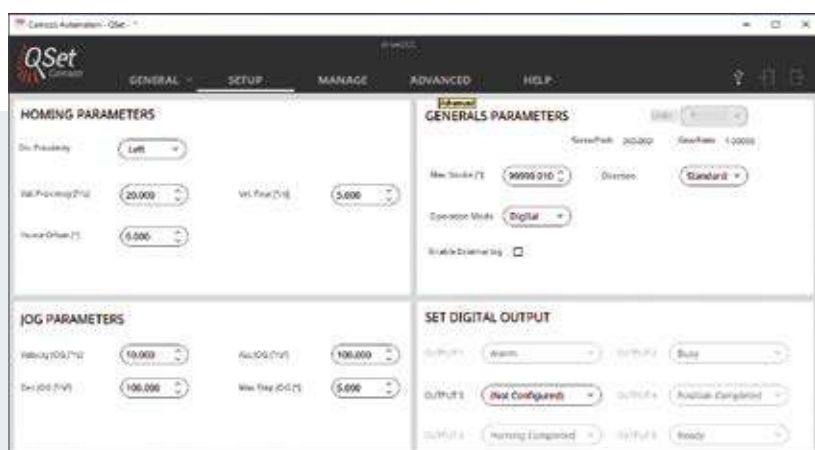


CAMOZZI AUTOMATION SOFTWARE

Camozzi has developed several free-to-use software programs **for the use and management of its products.**

With specifically designed interfaces that allow **the easy and intuitive control** of connected components, it is **a simple process to configure and manage** a system's parameters.

QSET CONFIGURATOR

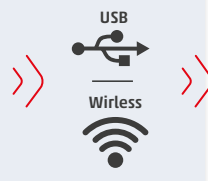
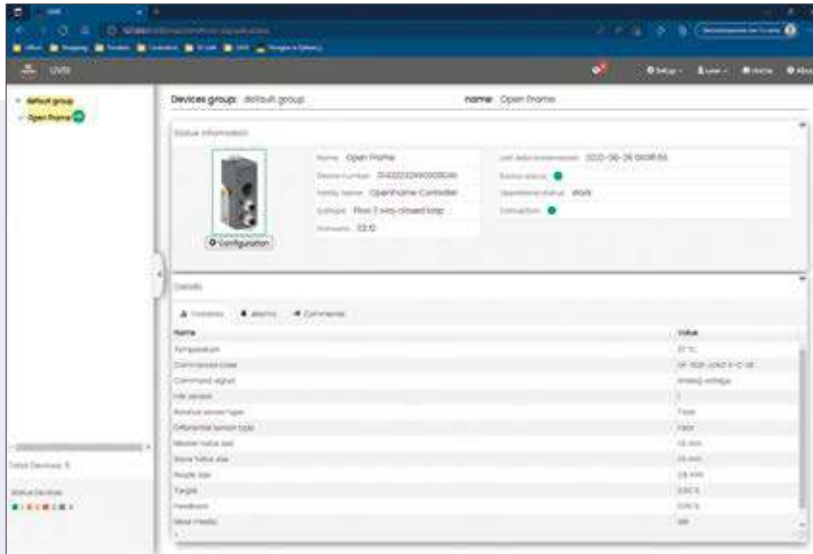


Qset has been designed so that any user can create a program for the positioning and control of an electric axis or cylinder. Once configured, up to 64 command lines can be programmed and for each of them, the type of movement to perform can be defined.

SUITABLE FOR:

- Series DRCS

UVIX CONFIGURATOR

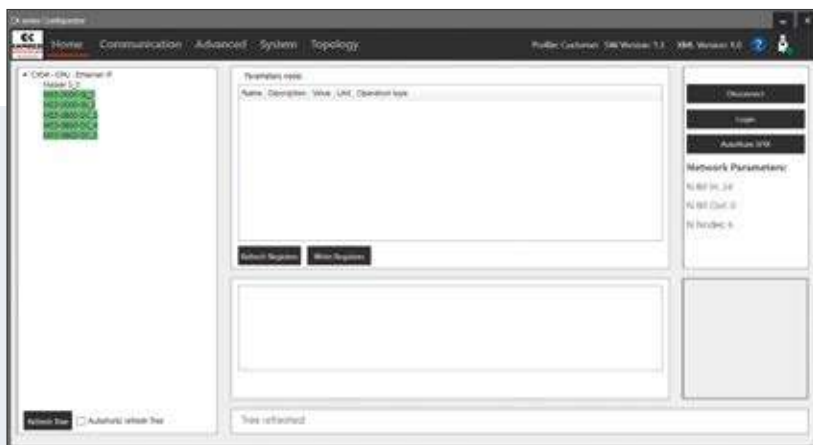


UVIX was created to satisfy the specific needs of users demanding easy and quick system configuration via a wireless or USB connection. This software is not only a tool for effortlessly setting parameters but is also able to monitor different variables and identify possible errors, guaranteeing constant and precise control of the system.

SUITABLE FOR:

- Series D Fieldbus
- Series CX4
- Series PRE
- Series OF
- Series DRVI

CX CONFIGURATOR



The CX configurator software enables the monitoring and configuration of Series CX fieldbus modules. A USB connection allows the user to constantly monitor the state of directly connected components, while system configuration enables modules to be adapted to the specific needs of the application.

SUITABLE FOR:

- Series CX4
- Series HN
- Series F
- Series 3

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