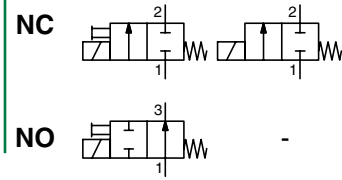




# SOLENOID VALVES

direct operated  
1/8 - 1/4



2/2  
Series  
256

## FEATURES

- Wide range of flow and pressure ratings
- Quick disassembly of core tube for easy maintenance of internal parts
- Standard disc seal made of FPM suitable for a wide range of operating temperatures and compatible with many fluids
- Standard manual operator allows an easy installation (Except 4 and 5 mm orifice sizes)
- AC/DC interchangeability of the solenoid without disassembly of the valve
- Compliance with UL and CSA standards (coil 4/6,9 W)
- Compact and low weight valve
- The solenoid valves satisfy all relevant EC directives

## GENERAL

**Differential pressure** See «SPECIFICATIONS» [1 bar =100 kPa]  
**Maximum viscosity** 40 cSt (mm<sup>2</sup>/s)  
**Response time** 5 - 10 ms

| fluids (*)                 | temperature range (TS) | seal materials (*)    |
|----------------------------|------------------------|-----------------------|
| air, inert gas, water, oil | -10°C to +100°C        | FPM (fluoroelastomer) |

## MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

|                         | Brass body      | Stainless steel body |
|-------------------------|-----------------|----------------------|
| <b>Body</b>             | Brass           | AISI 316             |
| <b>Core tube</b>        | Stainless steel | Stainless steel      |
| <b>Core and plugnut</b> | Stainless steel | Stainless steel      |
| <b>Springs</b>          | Stainless steel | Stainless steel      |
| <b>Seat</b>             | Brass           | Stainless steel      |
| <b>Seals</b>            | FPM             | FPM                  |
| <b>Disc</b>             | FPM             | FPM                  |
| <b>Shading coil</b>     | Copper          | Copper               |

## ELECTRICAL CHARACTERISTICS

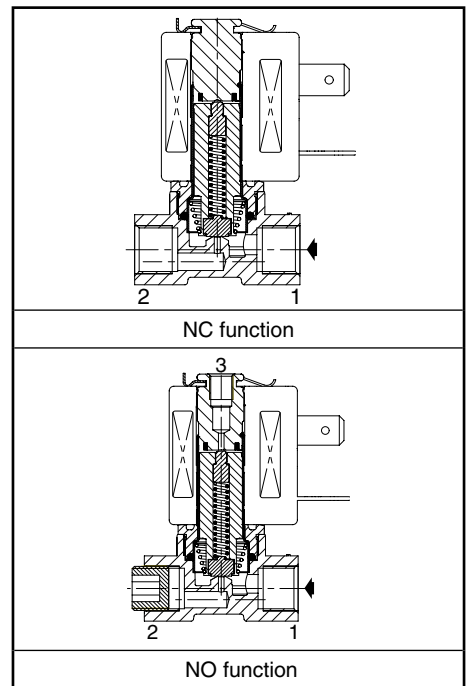
**Coil insulation class** F  
**Connector** Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)  
**Connector specification** DIN 43650, 11 mm, industry standard B (type 01) or ISO 4400 / EN 175301-803, form A (type 02)  
**Electrical safety** IEC 335  
**Electrical enclosure protection** Moulded IP65 (EN 60529)  
**Standard voltages** DC (=) : 24V - 48V  
 (Other voltages and 60 Hz on request) AC (~) : 24V - 48V - 115V - 230V / 50 Hz

| prefix option | power ratings |              |               |         | operator ambient temperature range (TS)<br>(C°) | replacement coil |            | type <sup>(1)</sup> |
|---------------|---------------|--------------|---------------|---------|---|------------------|------------|---------------------|
|               | inrush<br>~   | holding<br>~ | hot/cold<br>= |         |   | ~                | =          |                     |
|               | (VA)          | (VA)         | (W)           | (W)     |   | 230 V/50 Hz      | 24 V DC    |                     |
| SC            | 12            | 6            | 4             | 5 / 6,9 | -10 to +60                                      | 400127-197       | 400127-142 | 01                  |
|               | 15            | 7            | 5             | 5 / 6,9 | -10 to +60                                      | 400727-117       | 400727-185 | 02                  |

<sup>(1)</sup> Refer to the dimensional drawings on the following page.

## SPECIFICATIONS

| pipe size                   | orifice size | flow coefficient Kv |         | operating pressure differential (bar) |    |         |    |           |    | power coil (W) |   | catalogue number |               | options       |   |         |   |
|-----------------------------|--------------|---------------------|---------|---------------------------------------|----|---------|----|-----------|----|----------------|---|------------------|---------------|---------------|---|---------|---|
|                             |              |                     |         | max. (PS)                             |    |         |    |           |    |                |   |                  |               |               |   |         |   |
|                             |              |                     |         | min.                                  |    | air (*) |    | water (*) |    |                |   |                  |               |               |   | oil (*) |   |
| G                           | (mm)         | (m <sup>3</sup> /h) | (l/min) |                                       |    |         |    |           |    |                |   |                  |               |               |   |         |   |
|                             |              |                     |         | ~                                     | =  | ~       | =  | ~         | =  | ~              | = | ~/=              | ~/=           | EPDM          |   |         |   |
| <b>NC - Normally closed</b> |              |                     |         |                                       |    |         |    |           |    |                |   |                  |               |               |   |         |   |
| 1/8                         | 1,2          | 0,05                | 0,8     | 0                                     | 28 | 20      | 28 | 20        | 28 | 20             | 4 | 6,9              | SCG256B001VMS | SCG256B013VMS | E | -       | - |
|                             | 1,6          | 0,08                | 1,33    | 0                                     | 20 | 12      | 20 | 12        | 20 | 12             | 4 | 6,9              | SCG256B002VMS | SCG256B014VMS | E | -       | - |
|                             | 2,0          | 0,11                | 1,83    | 0                                     | 15 | 6       | 15 | 6         | 15 | 6              | 4 | 6,9              | SCG256B003VMS | SCG256B015VMS | E | -       | - |
|                             | 2,4          | 0,13                | 2,16    | 0                                     | 12 | 4       | 12 | 4         | 12 | 4              | 4 | 6,9              | SCG256B004VMS | SCG256B016VMS | E | -       | - |
| 1/4                         | 1,6          | 0,08                | 1,33    | 0                                     | 20 | 12      | 20 | 12        | 20 | 12             | 4 | 6,9              | SCG256B402VMS | SCG256B414VMS | - | -       | - |
|                             |              |                     |         |                                       | 20 | 15      | 20 | 15        | 20 | 15             | 5 | 6,9              | SCG256B466VMS | SCG256B434VMS | - | -       | - |
|                             | 2,4          | 0,16                | 2,67    | 0                                     | 12 | 4       | 12 | 4         | 12 | 4              | 4 | 6,9              | SCG256B404VMS | SCG256B416VMS | - | -       | - |
|                             |              |                     |         |                                       | 15 | 8       | 15 | 8         | 15 | 8              | 5 | 6,9              | SCG256B470VMS | SCG256B436VMS | - | -       | - |
|                             | 4            | 0,33                | 5,5     | 0                                     | 5  | 2       | 5  | 2         | 5  | 2              | 5 | 6,9              | SCG256B471V   | -             | - | -       | - |
|                             | 5            | 0,45                | 7,5     | 0                                     | 3  | 1       | 3  | 1         | 3  | 1              | 5 | 6,9              | SCG256B472V   | -             | - | -       | - |
| <b>NO - Normally open</b>   |              |                     |         |                                       |    |         |    |           |    |                |   |                  |               |               |   |         |   |
| 1/8                         | 1,2          | 0,05                | 0,8     | 0                                     | 10 | 10      | 10 | 10        | 10 | 10             | 4 | 6,9              | SCG256B006VMS | SCG256B018VMS | E | -       | - |



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### OPTIONS

- Valves can also be supplied with EPDM (ethylene-propylene) seals and discs. Use the appropriate optional suffix letter for identification (1/8 version only)
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 94/9/EC (see "Explosionproof solenoids" section)
- Flying leads coil, use prefix L (e.g.: LG256B001VMS) (4 W/6,9 W coil only)
- Oxygen service with seals and disc in FPM, suffix NV, example: SCG256B001NVMS
- Solenoid valves integrated on manifold, orifice sizes 1,2 - 1,6 - 2 - 2,4 mm (See V297)
- French sanitary conformity approval ACS for potable water applications, suffix: FW (1/8 NC only)
- Without manual operator, on request
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

### INSTALLATION

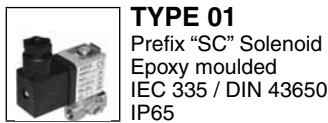
- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valves have 2 mounting holes in body
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

### ORDERING EXAMPLES:

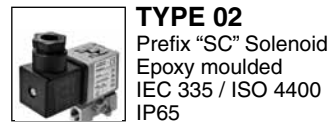
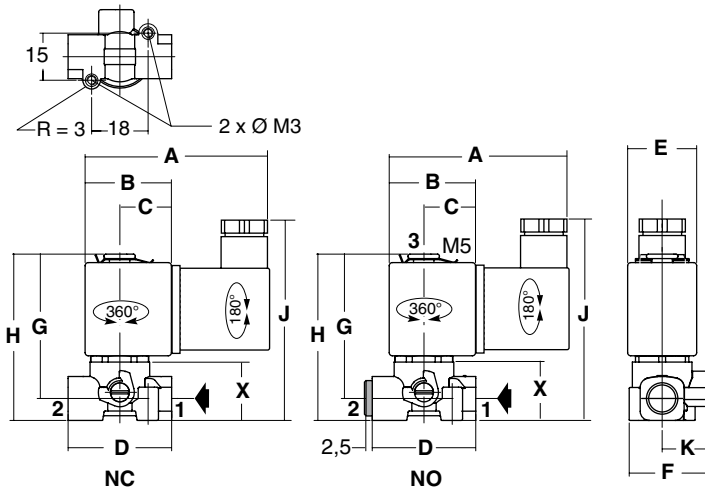
|    |   |     |       |      |              |
|----|---|-----|-------|------|--------------|
| SC | G | 256 | B 001 | VMS  | 230V / 50 Hz |
| SC | G | 256 | B 002 | EMS  | 115V / 50 Hz |
| SC | G | 256 | B 014 | NVMS | 24V / DC     |
| SC | G | 256 | B 001 | FWMS | 24V / DC     |
| SC | G | 256 | B 471 | V    | 230V / 50 Hz |
| SC | G | 256 | B 006 | VMS  | 230V / 50 Hz |

prefix — pipe thread — basic number — voltage — suffix

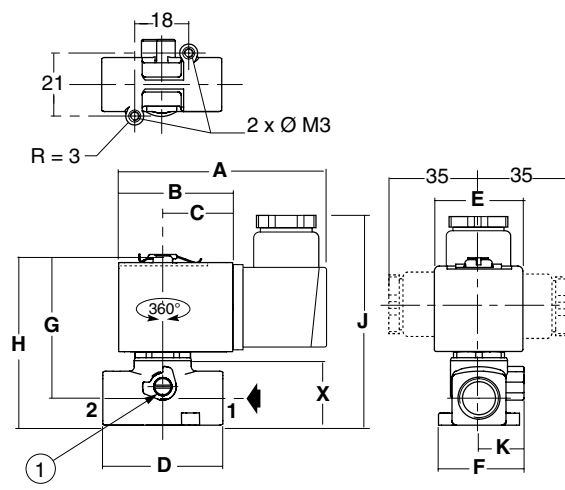
### DIMENSIONS (mm), WEIGHT (kg)



NC (1/8): SCG256B001V/002V/003V/004V/013V/014V/015V/016V  
NO (1/8): SCG256B006V/018V

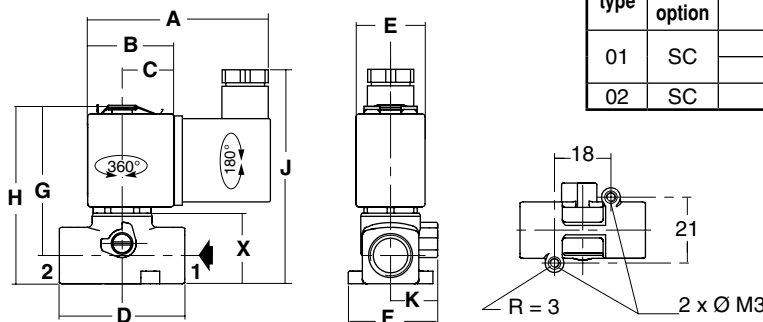


NC (1/4): SCG256B434VMS/436VMS/466VMS/470VMS/471V/472V



① Except catalogue numbers: SCG256B471V/472V

NC (1/4): SCG256B402VMS/404VMS/414VMS/416VMS



| type | prefix option | pipe size | A    | B    | C    | D  | E    | F    | G  | H  | J    | K  | X    |
|------|---------------|-----------|------|------|------|----|------|------|----|----|------|----|------|
| 01   | SC            | 1/8       | 60,5 | 27,5 | 16,5 | 33 | 22   | 25,5 | 46 | 53 | 69   | 15 | 18,6 |
|      |               | 1/4       | 60,5 | 27,5 | 16,5 | 40 | 22   | 28,5 | 48 | 57 | 76   | 15 | 23,4 |
| 02   | SC            | 1/4       | 76   | 38   | 23,3 | 40 | 29,7 | 28,5 | 48 | 57 | 78,5 | 15 | 23,4 |

| type | prefix option | pipe size | weight <sup>(2)</sup> |                 |
|------|---------------|-----------|-----------------------|-----------------|
|      |               |           | brass                 | stainless steel |
| 01   | SC            | 1/8       | 0,152                 | 0,148           |
|      |               | 1/4       | 0,180                 | 0,177           |
| 02   | SC            | 1/4       | 0,235                 | 0,232           |

<sup>2)</sup> Incl. coil(s) and connector(s).