

Siemens
EcoTech



SIMATIC ET 200MP. PROFINET IO-DEVICE INTERFACEMODULE IM 155-5 PN ST FOR ET 200MP ELEKTRONIKMODULES; UP TO 12 IO-MODULES WITHOUT ADDITIONAL PS; UP TO 30 IO- MODULES WITH ADDITIONONAL PS SHARED DEVICE; MRP; IRT >=0.25MS; ISOCHRONICITY FW-UPDATE; I&M0...3; FSU WITH 500MS



Figure similar

General information	
Product type designation	IM 155-5 PN ST
HW functional status	From FS01
Firmware version	V4.1.0
<ul style="list-style-type: none"> FW update possible 	Yes
Vendor identification (VendorID)	0x002A
Device identifier (DeviceID)	0X0312
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> Module swapping during operation (hot swapping) 	No
<ul style="list-style-type: none"> Isochronous mode 	Yes
<ul style="list-style-type: none"> Tool changer 	No
<ul style="list-style-type: none"> Local coupling, IO data 	No
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	V15
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	use GSD file
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	GSDML V2.3
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	10 ms
Input current	
Current consumption (rated value)	0.2 A; at 24 V DC and without load
Current consumption, max.	1.2 A
Inrush current, max.	9 A
I ² t	0.09 A ² ·s
Power	
Infeed power to the backplane bus	14 W
Power consumption from the backplane bus	2.3 W; in case of operation with separate system power supply to the left of IM
Power loss	

Power loss, typ.	4.5 W
Address area	
Address space per module	
• Address space per module, max.	256 byte; For input and output data respectively
Address space per station	
• Address space per station, max.	512 byte; For input and output data respectively
Hardware configuration	
Integrated power supply	Yes; 14 W
System power supply can be plugged in to left of IM	Yes
Number of permissible power segments	3; incl. interface module
Rack	
• Modules per rack, max.	30; I/O modules
Submodules	
• Number of submodules per station, max.	256; 9 per I/O module
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
• RJ 45 (Ethernet)	Yes
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	No
Protocols	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP client
PROFINET IO Device	
Services	
— IRT	Yes; 250 µs to 4 ms in 125 µs frame
— PROFINergy	No
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
Interface types	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
• Autonegotiation	Yes
• Autocrossing	Yes
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	Yes
PROFIBUS	No
EtherNet/IP	No
Modbus TCP	No
Redundancy mode	
• PROFINET system redundancy (S2)	No
— on S7-1500R/H	No
— on S7-400H	No
• PROFINET system redundancy (R1)	No
• H-Sync forwarding	No
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Isochronous mode	
Equidistance	Yes

shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs

Interrupts/diagnostics/status information

Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes

Diagnostics indication LED

<ul style="list-style-type: none"> • RUN LED 	Yes; green LED
<ul style="list-style-type: none"> • ERROR LED 	Yes; red LED
<ul style="list-style-type: none"> • MAINT LED 	Yes; Yellow LED
<ul style="list-style-type: none"> • Connection display LINK TX/RX 	Yes; 2x green-yellow LEDs

Potential separation

between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1500 V AC (type test)
between supply and all other circuits	No

Permissible potential difference

between different circuits	Safety extra low voltage SELV
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Isolation

Isolation tested with	707 V DC (type test)
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Standards, approvals, certificates

Ecological footprint

<ul style="list-style-type: none"> • environmental product declaration 	Yes
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Global warming potential

— global warming potential, (total) [CO2 eq]	64.1 kg
— global warming potential, (during production) [CO2 eq]	11.1 kg
— global warming potential, (during operation) [CO2 eq]	53.6 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.669 kg

Ambient conditions

Ambient temperature during operation

<ul style="list-style-type: none"> • horizontal installation, min. 	-25 °C; From FS03
<ul style="list-style-type: none"> • horizontal installation, max. 	60 °C
<ul style="list-style-type: none"> • vertical installation, min. 	-25 °C; From FS03
<ul style="list-style-type: none"> • vertical installation, max. 	40 °C

Altitude during operation relating to sea level

<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
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connection method

ET-Connection

<ul style="list-style-type: none"> • via BU/BA Send 	No
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Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

Classifications

	Version	Classification
eClass	14	27-24-26-08
eClass	12	27-24-26-08
eClass	9.1	27-24-26-08
eClass	9	27-24-26-08
eClass	8	27-24-26-08
eClass	7.1	27-24-26-08
eClass	6	27-24-26-08
ETIM	9	EC001604
ETIM	8	EC001604
ETIM	7	EC001604

IDEA	4	3564
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	For use in hazardous locations
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[EM](#)

For use in hazardous locations	Marine / Shipping
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[Type Examination Certificate](#)



[Miscellaneous](#)

[CCC-Ex](#)



Marine / Shipping



[NK / Nippon Kaiji Kyokai](#)



Marine / Shipping	Environment	Industrial Communication
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[CCS \(China Classification Society\)](#)



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last modified:

10/9/2024