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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
• FW update possible	Yes
Vendor identification (VendorID)	0x002A
Device identifier (DeviceID)	0X0312
Product function	
• I&M data	Yes; I&M0 to I&M3
• Module swapping during operation (hot swapping)	No
• Isochronous mode	Yes
• Tool changer	No
• Local coupling, IO data	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V15
• STEP 7 configurable/integrated from version	use GSD file
• 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	
• 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
— PROFIenergy	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			
• RUN LED	Yes; green LED		
• ERROR LED	Yes; red LED		
• MAINT LED	Yes; Yellow LED		
• 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		
Isolation			
Isolation tested with	707 V DC (type test)		
Standards, approvals, certificates			
Ecological footprint			
• environmental product declaration	Yes		
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			
• horizontal installation, min.	-25 °C; From FS03		
• horizontal installation, max.	60 °C		
• vertical installation, min.	-25 °C; From FS03		
• vertical installation, max.	40 °C		
Altitude during operation relating to sea level			
• Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual		
connection method			
ET-Connection			
• via BU/BA Send	No		
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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[FM](#)

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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