



SIMATIC ET 200MP. PROFINET IO device Interface module IM 155-5 PN HF, for ET 200MP electronic modules; Up to 12 IO modules without PS; Up to 30 IO modules with additional PS; Integrated 2-port switch; RJ45 shared device; MRP; IRT ≥ 0.25 ms; Isochronous mode FW update; I&M0...3; Prioritized startup, S2 redundancy; Shared device with 4 controllers Suitable for operation with active backplane bus (FW V4.4 or higher)

General information	
Product type designation	IM 155-5 PN HF
HW functional status	From FS03
Firmware version	V4.4
<ul style="list-style-type: none"> FW update possible 	Yes
Vendor identification (VendorID)	002AH
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) 	Yes; In combination with active backplane bus
<ul style="list-style-type: none"> Isochronous mode 	Yes
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	V16 with HSP 308
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	V2.3 / -
Configuration control	
via user data	No

via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 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	5 ms
Input current	
Current consumption (rated value)	0.2 A
Current consumption, max.	1.2 A
Inrush current, max.	9 A
I^2t	0.09 A ² ·s
Power	
Infeed power to the backplane bus	14 W
Power available from the backplane bus	2.3 W
Power loss	
Power loss, typ.	4.5 W
Address area	
Address space per module	
• Address space per module, max.	256 byte; per input / output
Address space per station	
• Address space per station, max.	512 byte; per input / output
Hardware configuration	
Integrated power supply	Yes
System power supply can be plugged in to left of IM	Yes; only with design with U-connectors
Number of permissible power segments	3
Rack	
• Modules per rack, max.	30; I/O modules
Submodules	
• Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1
1. Interface	
Interface types	
• Number of ports	2
• integrated switch	Yes
• RJ 45 (Ethernet)	Yes
Protocols	

- PROFINET IO Device Yes
- Open IE communication Yes
- Media redundancy Yes

Interface types

RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
• Autonegotiation	Yes
• Autocrossing	Yes

Protocols

PROFINET IO Device	
Services	
— IRT	Yes
— PROFINergy	No
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
• PROFINET system redundancy (S2)	Yes
— on S7-1500R/H	Yes
— on S7-400H	Yes; With GSDML file as of STEP 7 V5.5 SP3
• Redundant PROFINET configuration (R1)	No
• H-Sync forwarding	Yes
Media redundancy	
— MRP	Yes
— MRPD	Yes
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes

Isochronous mode

Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms

Interrupts/diagnostics/status information

Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	

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|---------------------------------|---------------------------|
| • 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; 1 500 V AC
between supply and all other circuits	No

Isolation

Isolation tested with	707 V DC (type test)
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Ambient conditions

Ambient temperature during operation

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|---------------------------------|-------------------|
| • horizontal installation, min. | -25 °C; from FS04 |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | -25 °C; from FS04 |
| • vertical installation, max. | 40 °C |

Altitude during operation relating to sea level

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|---|--|
| • 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

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| • via BU/BA Send | No |
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Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

Weights

Weight, approx.	350 g
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last modified: 06/12/2020