

SIMATIC ET 200MP PROFINET IO device Interface module IM 155-5 PN BA for ET 200MP electronic modules; up to 12 IO modules; Integrated 2-port switch; RJ45 Shared Device with 2 IO controllers, MRP; FW update; I&M0...3



General information	
Product type designation	IM 155-5 PN BA
HW functional status	FS02
Firmware version	V4.3.0
Vendor identification (VendorID)	0x002A
Device identifier (DeviceID)	0X0312
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V15.1 with HSP 187
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3 / -
Configuration control	
via user data	No
via dataset	No
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)	1 A
Current consumption, max.	1.7 A
Inrush current, max.	2.8 A
$I^2t$	0.04 A <sup>2</sup> ·s

#### Power

Infeed power to the backplane bus	14 W
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#### Power loss

Power loss, typ.	3 W
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#### Address area

Address space per module	
• Address space per module, max.	64 byte; per input / output
Address space per station	
• Address space per station, max.	64 byte; per input / output

#### Hardware configuration

Integrated power supply	Yes
System power supply can be plugged in to left of IM	No
Number of permissible power segments	1

#### Rack

- Modules per rack, max. 12; I/O modules

#### Submodules

- Number of submodules per station, max. 108; 9 submodules / I/O modules

#### Interfaces

Number of PROFINET interfaces	1; 2 ports (switch) RJ45
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#### 1. Interface

Interface types	
• Number of ports	2
• integrated switch	Yes
• RJ 45 (Ethernet)	Yes
• BusAdapter (PROFINET)	No
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 No
- PROFIenergy No
- Prioritized startup No
- Shared device Yes
- Number of IO Controllers with shared device, max. 2

### Redundancy mode

- PROFINET system redundancy (S2) No

### Media redundancy

- MRP Yes
- MRPD No

### Open IE communication

- TCP/IP Yes
- SNMP Yes
- LLDP Yes

## Isochronous mode

- Equidistance No

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

<b>Permissible potential difference</b>	
between different circuits	Safety extra low voltage SELV
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Network loading class	2
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> <li>• vertical installation, min.</li> <li>• vertical installation, max.</li> </ul>	<ul style="list-style-type: none"> <li>0 °C</li> <li>60 °C</li> <li>0 °C</li> <li>40 °C</li> </ul>
<b>Altitude during operation relating to sea level</b>	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
<b>Dimensions</b>	
Width	35 mm
Height	147 mm
Depth	129 mm
<b>Weights</b>	
Weight, approx.	236 g
<b>last modified:</b>	05/13/2020