

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	From 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>• Module swapping during operation (hot swapping)</li> </ul>	No
<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 from version</li> </ul>	V15.1 with HSP 187
<ul style="list-style-type: none"> <li>• STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>• PROFINET from 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	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	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
Power loss	
Power loss, typ.	3 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Address space per module, max.</li> </ul>	64 byte; per input / output
Address space per station	
<ul style="list-style-type: none"> <li>Address space per station, max.</li> </ul>	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	
<ul style="list-style-type: none"> <li>Modules per rack, max.</li> </ul>	12; I/O modules
Submodules	
<ul style="list-style-type: none"> <li>Number of submodules per station, max.</li> </ul>	108; 9 submodules / I/O modules
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch) RJ45
1. Interface	
Interface types	
<ul style="list-style-type: none"> <li>RJ 45 (Ethernet)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Number of ports</li> </ul>	2
<ul style="list-style-type: none"> <li>integrated switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>BusAdapter (PROFINET)</li> </ul>	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
— PROFINergy	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>-30 °C; From FS03</li> <li>60 °C</li> <li>-30 °C; From FS03</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>	10/09/2020 