



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

General information	
Product type designation	IM 155-5 PN ST
HW functional status	From FS01
Firmware version	V4.1.0
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
Engineering with	
<ul style="list-style-type: none"> • STEP 7 TIA Portal configurable/integrated from version 	V14 or higher with HSP 0223 / integrated with V15 or higher
<ul style="list-style-type: none"> • STEP 7 configurable/integrated from version 	GSDML V2.32
<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	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	10 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	<ul style="list-style-type: none"> Address space per module, max.
	256 byte; per input / output
Address space per station	<ul style="list-style-type: none"> 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
Number of permissible power segments	3
Rack	
<ul style="list-style-type: none"> Modules per rack, max. 	30; I/O modules
Interfaces	
Number of PROFINET interfaces	1
1. Interface	
Interface types	
<ul style="list-style-type: none"> Number of ports integrated switch RJ 45 (Ethernet) 	<ul style="list-style-type: none"> 2 Yes Yes
Protocols	
<ul style="list-style-type: none"> PROFINET IO Device Open IE communication 	<ul style="list-style-type: none"> Yes Yes

- Media redundancy

Yes; PROFINET MRP

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. | 2 |

Redundancy mode

- | | |
|---|----|
| • PROFINET system redundancy (S2) | No |
| • Redundant PROFINET configuration (R1) | 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 μ s |
| max. cycle | 4 ms |

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
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	
• 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

last modified: 08/25/2020