



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"> 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 | |
| • 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 | |
| • 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 |
| Number of permissible power segments | 3 |

| | |
|--------------------------|-----------------|
| Rack | |
| • Modules per rack, max. | 30; I/O modules |

| | |
|-------------------------------|---|
| 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; 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

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|-----------------------|----------------------|
| 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

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| • via BU/BA Send | No |
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Dimensions

| | |
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| Width | 35 mm |
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|--------|--------|
| Height | 147 mm |
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| Depth | 129 mm |
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last modified: 06/12/2020