

SIMATIC PN/PN Coupler for deterministic data exchange between max.4 PN-Controller per subnet, also from subnet to subnet, PROFINET data exchange, I/O-, MSI-, MSO- and data record communication, redundant power supply, PN-connection via SIMATIC BusAdapter (BA), delivery w/o BusAdapter



General information	
Product type designation	PN/PN coupler
Firmware version	V4.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3
Installation type/mounting	
Mounting	Mounting rail 7.5 mm and 15 mm
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	10 ms
Input current	

Current consumption, max.	360 mA; For 19.2 V input voltage at the right-hand supply terminal, including 2 plugged BA 2x LC
from supply voltage 1L+, max.	320 mA; For 19.2 V input voltage at the left-hand supply terminal, including 2 plugged BA 2x LC

Power loss	
Power loss, typ.	4 W; For 24 V input voltage and 2 plugged BA 2x RJ45 If BusAdapters with an optical interface are plugged, there is an additional 750 mW per optical interface (3 W with 2 plugged BA 2x LC)

Address area	
Address space per module	
• Address space per module, max.	254 byte; max. 254 bytes of input data and 253 bytes of output data
Address space per station	
• Address space per station, max.	1 440 byte; per input / output

Hardware configuration	
Submodules	
• Number of submodules per station, max.	116

Interfaces	
Number of PROFINET interfaces	2; One PROFINET interface per line side
With optical interface	Yes; Via SIMATIC BusAdapter
PROFINET IO	
• automatic detection of transmission rate	Yes
• Transmission rate, max.	100 Mbit/s
• RJ 45	Yes; Via SIMATIC BusAdapter

1. Interface	
Interface types	
• Number of ports	2; via BusAdapter
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes; Compatible BusAdapter: BA 2x RJ45, BA 2x FC, BA 2x SCRJ, BA SCRJ / RJ45, BA SCRJ / FC, BA 2x LC, BA LC / RJ45, BA LC / FC
Functionality	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring

2. Interface	
Interface types	
• Number of ports	2; via BusAdapter
• integrated switch	Yes
Functionality	

- PROFINET IO Device Yes
- Open IE communication Yes
- Media redundancy Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring

### Interface types

#### RJ 45 (Ethernet)

- Transmission procedure PROFINET with 100 Mbit/s full duplex (100BASE-TX)
- 10 Mbps No
- 100 Mbps Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
- Autonegotiation Yes
- Autocrossing Yes

### Protocols

Supports protocol for PROFINET IO Yes

#### Protocols (Ethernet)

- TCP/IP Yes
- SNMP Yes
- LLDP Yes
- ping Yes
- ARP Yes

#### PROFINET IO Device

##### Services

- Isochronous mode No
- Open IE communication Yes
- IRT Yes
- PROFIenergy No
- Prioritized startup Yes
- Shared device Yes
- Number of IO Controllers with shared device, max. 4; per line side

##### Redundancy mode

- MRP Yes
- MRPD Yes
- PROFINET system redundancy (S2) No

#### Open IE communication

- TCP/IP Yes
- SNMP Yes
- LLDP Yes

### Isochronous mode

Isochronous operation (application synchronized up to terminal) No; For operation on isochronous bus

### Interrupts/diagnostics/status information

Status indicator	Yes
Alarms	Yes
Diagnostic functions	Yes
<b>Diagnostics indication LED</b>	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• MAINT LED	Yes; yellow LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Connection to network LINK (green)	Yes; 2x green link LEDs on BusAdapter
<b>Potential separation</b>	
between supply voltage and electronics	Yes; to power input 2
between Ethernet and electronics	Yes
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Network loading class	3
Security level	According to Security Level 1 Test Cases V1.1.4
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	0 °C
• max.	60 °C; = Tmax for horizontal installation; for vertical installation Tmax = 50 °C
<b>Altitude during operation relating to sea level</b>	
• Ambient air temperature-barometric pressure-altitude	Up to max. 2 000 m
<b>Dimensions</b>	
Width	100 mm; Minimized with good handling
Height	117 mm
Depth	74 mm; with mounting rail
<b>Weights</b>	
Weight, approx.	200 g; without BusAdapter
<b>last modified:</b>	02/20/2018