



SIMATIC PN/PN Coupler for deterministic data exchange between max.4 PN-Controller per subnet, also from subnet to subnet, PROFIsafe 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	
FW update possible	Yes
Product function	
I&M data	Yes; I&M0 to I&M3
Isochronous mode	No; For operation on isochronous bus
Tool changer	Yes; Docking station and docking unit
Local coupling, IO data	Yes
- Number of coupling modules	16
- Number of coupling submodules per module	4; 1x write, 3x read
Local coupling, data records	Yes
- Number of coupling modules	16
- Number of coupling submodules per module	4; 1x write, 3x read
- Record length, max.	4 096 byte
- FIFO depth in storage mode	8
Engineering with	
STEP 7 TIA Portal configurable/integrated from version	STEP 7 V15.1 or higher
PROFINET from GSD version/GSD revision	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	
Mains/voltage failure stored energy time	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
Inrush current, max.	1.6 A
I^2t	0.031 A ² ·s
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	
Optical interface	Yes; Via SIMATIC BusAdapter	
Transmission rate, max.	100 Mbit/s	
1. Interface		
Interface types		
- Number of ports - integrated switch - BusAdapter (PROFINET)	2; via BusAdapter Yes 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	
Protocols		
- PROFINET IO Device - Open IE communication - Media redundancy	Yes Yes Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring	
2. Interface		
Interface types		
- Number of ports - integrated switch	2; via BusAdapter Yes	
Protocols		
- PROFINET IO Device - Open IE communication - Media redundancy	Yes Yes Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring	
Interface types		
RJ 45 (Ethernet)		
- Transmission procedure 10 Mbps 100 Mbps - Autonegotiation - Autocrossing	PROFINET with 100 Mbit/s full duplex (100BASE-TX) No Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes Yes	
Protocols		
Supports protocol for PROFINET IO	Yes	
Protocols (Ethernet)		
- TCP/IP - SNMP - LLDP - ping - ARP	Yes Yes Yes Yes Yes	
PROFINET IO Device		
Services		
- IRT - PROFINET energy - Prioritized startup - Shared device - Number of IO Controllers with shared device, max.	Yes No Yes Yes 4; per line side	
Redundancy mode		
- PROFINET system redundancy (S2) - H-Sync forwarding	Yes; NAP S2 acc. to IEC Yes	

Media redundancy	
— MRP	Yes
— MRPD	Yes
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes; Parameterizable
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• MAINT LED	Yes; Yellow LED
• LINK LED	Yes; 2x green link LEDs on BusAdapter
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
Potential separation	
between supply voltage and electronics	Yes; to power input 2
between Ethernet and electronics	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Security level	According to Security Level 1 Test Cases V1.1.4
Ambient conditions	
Ambient temperature during operation	
• min.	-30 °C; From FS05
• max.	60 °C; = Tmax for horizontal installation; for vertical installation Tmax = 50 °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 section "Climatic and mechanical environmental conditions"
Mechanics/material	
Strain relief	Yes; Optional, for RJ45 and FC BusAdapter only
Dimensions	
Width	100 mm; Minimized with good handling
Height	117 mm
Depth	74 mm; with mounting rail
Weights	
Weight, approx.	200 g; without BusAdapter
last modified:	3/22/2021 