## SIEMENS

## Data sheet

## 6ES7158-3AD10-0XA0



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, PNconnection 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	
<ul> <li>Local coupling, IO data</li> </ul>	Yes	
<ul> <li>— Number of coupling modules</li> </ul>	16	
<ul> <li>— Number of coupling submodules per module</li> </ul>	4; 1x write, 3x read	
<ul> <li>Local coupling, data records</li> </ul>	Yes	
<ul> <li>Number of coupling modules</li> </ul>	16	
<ul> <li>Number of coupling submodules per module</li> </ul>	4; 1x write, 3x read	
— Record length, max.	4 096 byte	
— FIFO depth in storage mode	8	
Engineering with		
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	STEP 7 V15.1 or higher	
<ul> <li>PROFINET from 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> <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 $\rm 2x\ LC$	
Inrush current, max.	1.6 A	
l²t	0.031 A <sup>2</sup> ·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 statuon     Address space per statuon, max.     T 440 byte; per input / output     Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address space per statuon, max.     T 440 byte; per input / output      Address statuon, max.     T 440 byte; per input / output      Address statuon, max.     T 440 byte; per input / output      Address statuon, max.     T 440 byte; per input / output      Address statuon, max.     T 440 byte; per input / output      Address statuon, max.     T 440 byte; per input / output / outp	- Address anges per medule, may	254 bits: may 254 bitss of input data and 252 bitss of sutput data
• Address space per station, max.         1 440 byte; per input / adquat.           Hardners configuration         118           • Number of PROFINET interfaces         2. One PROFINET interface per line side           • Authore of PROFINET interfaces         2. One PROFINET interfaces per line side           • Justice of PROFINET interfaces         2. One PROFINET interfaces per line side           • Justice of option         Yes, Yus SINATIC Bus/Adapter           • Interface	Address space per module, max.	254 byte; max. 254 bytes of input data and 253 bytes of output data
Hardware sontiguration           Submodules           • Number of submodules par station, max.         110           Interfaces         Yes, Via SIMATC BusAdapter           Transmission rate, max.         100 Mbbrs           Interface         Yes, Via SIMATC BusAdapter           Transmission rate, max.         100 Mbbrs           Interface         Yes, Via SIMATC BusAdapter           * Integrated switch         Yes           • BusAdapter         Yes           • Ruber of ports         2: via BusAdapter           • Ruber of ports         Yes: As INRP or MRPD client; max. 50 or 30 devices in the ring           2. Unterface         Yes           • Ruber of ports         2: via BusAdapter           • Ruber ared and and         Yes           • Ruber		4.440 hide and inset / subside
Sumadus  Vurther for sumadules per station, max:  115 VurterAccs  Number of PROFINET Interfaces  Quical interface Yes, Via SIMATIC Buakdapter  Transmission rate, max.  100 Mbits  Ves.  Ves. Via SIMATIC Buakdapter  Interface  Ves. Ves. Ves. Ves. Ves. Ves. Ves. Ve		1 440 byte; per input / output
• Number of submodules per station, max.         116           Interfaces         2. One PROFINET interfaces per line side           Option interface         Yes, Via SIMARTO Buandapter           Transmission rate, max.         100 Mobils           1.Interface         Yes, Via SIMARTO Buandapter           Number of ports         2. Via SistARTO Buandapter           • HausAdapter (PROFINET)         Yes, Compatible Insubationer: Na Zx Ruds, Na Zx FC, BA Zx SCRJ, IN SCRJ, Via ScRD, IN SCRJ,		
Interface         United of PROFINET interfaces per line side           Optical Interface         Yes, Via SIMATIC Buakdapter           Transmission rate, max.         100 Mbb/s           Interface         Yes, Via SIMATIC Buakdapter           Interface bytes         2. via Buakdapter           Interface bytes         Yes           Interface bytes         Yes           Interface bytes         Yes           Interface bytes         2. via Buakdapter           Interface bytes         Yes           Interface bytes         2. via Buakdapter           Interface bytes         Yes		440
Number of PROFINET interfaces         2: One PROFINET interface per line side           Optical interface         Yes: Via SIMATIC BusAdapter           Transmission rate, max.         100 Mbi/s           1 Interface         Vis: Via SIMATIC BusAdapter           Number of ports         2: Via BusAdapter           • RepORTINET IN Device         Yes           • BusAdapter (PROFINET)         Vis: BusAdapter: BA 2x RMS, BA 2x FC, BA 2x SCRJ, BA SCRJ / FC, BA 2x LC, BA LC / FC           Protocols         -           • PROFINET ID Device         Yes           • PROFINET ID Device         Yes           • Moda redundancy         Yes (A BARD or MRPD client; max. 50 or 30 devices in the ring           2 Interface         -           • Number of ports         2; via BusAdapter           • Integrated switch         Yes           • Open II: communication         Yes           • Open II: communication         Yes           • Open II: communication         Yes           • Nuber of ports         2; via BusAdapter           • Interface bypes         No           • Open II: communication         Yes           • No No         No           • Open II: communication         Yes           • Interface         -           •	·	116
Optical Interface         Yes: Via SIMATIC BusAdapter           Transmission rate, max.         100 Mbi/s           Interface		
Tensision rate, max.         100 Mobils           1. Interface         Interface           Interface         2, Via BusAdapter           Interface types         2, Via BusAdapter           Interface types         2, Via BusAdapter, BA2, KA5, BA2, Vic, BA2, SCRJ, JR           Interface types         Ves           BusAdapter (PROFINET)         Ves           PROFINET IO Device         Yes           Open IE communication         Yes           Veda redundancy         Yes, As MRP or MRPD client, max. 50 or 30 devices in the ring           2. Interface         Interface types           Interface types         2, via BusAdapter           Interface types         Yes           Protocols         Yes           Interface types         Yes <td></td> <td></td>		
1. Interface           Interface types           • Number of ports         2, via BusAdapter           • Number of ports         2, via BusAdapter           • BusAdapter (PROFINET)         Yees, Compatible BusAdapter, BA 2x RU45, BA 2x FC, BA 2x SCRJ, BA SCRJ/ RU45, BA SCRJ / FC, BA 2x SC, BA LC / RU45, BA SCRJ / FC           Protocods         -           • Open IE communication         Yes           • Media redundancy         Yes, Sk MRP or MRPD client, max, 50 or 30 devices in the ring           2. Interface         -           • Interface types         -           • Number of ports         2, via BusAdapter           • No         Ves           • Open IE communication         Yes           • Ves         PROFINET With 100 Mbits full duplex (100BASE-TX)           • 10 Mbps         No <td< td=""><td>· · ·</td><td></td></td<>	· · ·	
Interface bypes         2, via BusAdapter           • Number of ports         2, via BusAdapter           • BusAdapter (PROFINET)         Yes           • PROFINET IO Device         Yes           • PROFINET IO Device         Yes           • Media redundancy         Yes, Xe MRP or MRPD client, max. 50 or 30 devices in the ring           2 Interface         Interface           Protocols         Yes           • Number of ports         2, via BusAdapter           • Number of ports         2, via BusAdapter           • Number of ports         2, via BusAdapter           • Interface         Yes           • PROFINET IO Device         Yes           • PROFINET IO Device         Yes           • PROFINET IO Device         Yes           • PROFINET VD Evelce         Yes           • PROFINET VD Evelce         Yes           • PROFINET VD Evelce         Yes           • Media redundary         Yes, Xes MRP or MRPD client, max. 50 or 30 devices in the ring           Interface         Yes           • Interface         Yes           • Interface         Yes           • Protocole         Yes           • Protocole         Yes           Interface         Yes <tr< td=""><td></td><td>100 Mbit/s</td></tr<>		100 Mbit/s
• Number of ports     2. via BusAdapter       • Integrated switch     Yes       • BusAdapter (PROFINET)     Yes       • PROFINET IO Device     Yes       • Open IE communication     Yes       • Open IE communication     Yes       • Number of ports     2. via BusAdapter       • Open IE communication     Yes       • Number of ports     2. via BusAdapter       • Number of ports     Yes       • Number of ports     2. via BusAdapter       • Number of ports     Yes       • Number of ports     2. via BusAdapter       • PROFINET IO Device     Yes       • Number of ports     2. via BusAdapter       • Number of ports     2. via BusAdapter       • Number of ports     2. via BusAdapter       • Integrated switch     Yes       • Open IE communication     Yes       • Open IE communication     Yes       • Torphy     Yes, is MIPP or MRPD client; max. 50 or 30 devices in the ring       Interface Upges     Yes       • Rod a redundancy     Yes       • Open IE communication     Yes       • Torphy     Yes       • Torphy     Yes       • Torphy     Yes       • Torphy     Yes       • Supports protocol for PROFINET IO     Yes       • SNMP<		
· Integrated witchYes· BusAdapter (PROFINET)Yes Compatible BusAdapter. BA 2x R45, BA 2x FC, BA 2x SCRJ, BA SCRJ, PR 2x SCRJ, BA SCRJ, PR 2x SCR, BA SCR 2V PR 2x SCR 2X SCR, BA SCR 2V PR 2x SCR 2X S		
• BusAdapter (PROFINET)         Yes: Compatible BusAdapter: BA 2x R45, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x FC, BA 2x SCRJ, FA SCRJ, FA 3C, BA 2x FC, BA 2x FC, BA 2x SCRJ, FA SCR		
R45, BA SCRJ / FC, BA 2x LC, BA LC / R45, BA LC / FC            PROFINET 10 Device         Yes         Adda redundancy         Yes; As MRP or MRPD client max, 50 or 30 devices in the ring             Interface textures             Interface types             Number of ports             No             Open IE communication             Yes             No                 Transmission procedure             Protocols             Supports protocol for PROFINET IO             Supports protocol for PROFINET IO <td< td=""><td>-</td><td></td></td<>	-	
Protocols     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       • Inlegrade switch     Yes       • Portocols     Yes       • Open IE communication     Yes       • Protocols     Foreneeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee	<ul> <li>BusAdapter (PROFINET)</li> </ul>	
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 Interface Interface types     Number of ports 2; Via BusAdapter     Yes     Yes     Number of ports 2; Via BusAdapter     Yes     Yes     Yes	Protocols	
• Open IE communicationYes• Media redundancyYes / NRP or NRPD client; max, 50 or 30 devices in the ring• Number of ports2; via BusAdapter• integrated switchYes• PROFINET IO DeviceYes• PROFINET IO DeviceYes• Media redundancyYes / Se MRP or NRPD client; max, 50 or 30 devices in the ring• Media redundancyYes / Se MRP or NRPD client; max, 50 or 30 devices in the ring• Interface types• Ves / Se MRP or NRPD client; max, 50 or 30 devices in the ring• Media redundancyYes / Se MRP or NRPD client; max, 50 or 30 devices in the ring• Interface types• Ves / Se /		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           • PROFINET I: D Device         Yes           • Media redundancy         Yes           • Media redundancy         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         TCAPNE           TCAPNE         Yes; MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         Yes; MPSOFINET intor MBys full duplex (100BASE-TX)           <		
2. Interface types Interface types Interface types Integrated switch Integrated swit	-	
Interface types         2; via BusAdapter           • Number of ports         2; via BusAdapter           • Integrated switch         Yes           Protocols         •           • Open IE communication         Yes           • Media redundancy         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         •           • Media redundancy         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interface types         •           • Transmission procedure         PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • 100 Mbps         Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • 100 Mbps         Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • Autoregotiation         Yes           • Autoregotiation         Yes           Protocol         Yes           Supports protocol for PROFINET IO         Yes           • Protocols (Ethemet)         Yes           • TCP/IP         Yes           • SIMAP         Yes           • DROF INET IO Device         Yes           Services         - IRT           - IRT         Yes           - PROFINET IO Device         Yes           Redundancy mode         Yes NAP S2		
• Number of ports     2; via BusAdapter       • integrated switch     Yes       PROEtocols     •       • PROFINET IO Device     Yes       • Open IE communication     Yes       • Idedia redundancy     Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring       Interface types     •       RL45 (Efferenet)     •       • Transistion procedure     PROFINET with 100 Mbit/s full duplex (100BASE-TX)       • 10 Mbps     No       • 10 Mbps     No       • 10 Mbps     No       • 10 Mbps     Yes       • 10 Mbps     No       • 10 Mbps     Yes       • Autocrossing     Yes       Protocols     •       Supports protocol for PROFINET IO     Yes       • ILDP     Yes       • ILDP     Yes       • ILDP     Yes       • IRT     Yes       • PROFINET IO Device     •       Services     •       • IRP     Yes       • PROFINET IO Device     •       Services     •       • IRT     Yes       • PROFI		
● integrated switch     Yes       Protocols     Yes       ● Open IE communication     Yes       ● Media redundancy     Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring       Interface types     R4 66 (Ehemet)       ● Transmission procedure     PROFINET with 100 Mbit/s full duplex (100BASE-TX)       ● 100 Mbps     No       ● 000 Mbps     Yes       ● Autocrossing     Yes       Protocols     Protocols       Environment     Yes       Protocols     Yes       ● Protocols     Yes    <		2: via BusAdapter
Protocols         • RROFINET IO Device       Yes         • Open IE communication       Yes         • Media redundancy       Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring         Intoface types       Transmission procedure         RJ 45 (Ethernet)       • Transmission procedure         • 100 Mbps       No         • 100 Mbps       Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)         • 100 Mbps       Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)         • Autocrossing       Yes         Protocols       Supports protocol for PROFINET IO         Supports protocol for PROFINET IO       Yes         • CIP/IP       Yes         • NMP       Yes         • LLDP       Yes         • IRT       Yes         • IRT       Yes         • PROFINET IO Device       Yes         Services       -         • IRT       Yes         • Name of IO Controllers with shared device, max.       4: per line side         Redundancy mode       Yes         • Number of IO Controllers with shared device, max.       4: per line side         Redundancy mode       Yes         • HSync forwarding       Yes         • HSync forwarding       Y		
• PROFINET IO Device     Yes       • Open IE communication     Yes       • Media redundancy     Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring       Intorface types       RJ 45 (Ethernet)       • 1 0Mbps     PROFINET with 100 Mbit/s full duplex (100BASE-TX)       • 10 Mbps     No       • 10 Mbps     Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)       • Autonegotiation     Yes       • Autonegotiation     Yes       • Autoregotiation     Yes       Protocols     Yes       Protocols (Ethernet)     Yes       • COP/IP     Yes       • IDP     Yes       • SNMP     Yes       • ARP     Yes       Protocols (Ethernet)     Yes       • Protocols (Ethernet)     Yes       • ILDP     Yes       • SNMP     Yes       PROFINET IO Device     Yes       Services     -       - IRT     Yes		105
• Open IE communicationYes • Media redundancy• Media redundancyYes; As MRP or MRPD client; max. 50 or 30 devices in the ringInterface typesInterface types• 17 ansmission procedurePROFINET with 100 Mbit/s full duplex (100BASE-TX)• 10 MbpsNo• 10 MbpsYes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)• 10 MbpsYes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)• AutonegotiationYesProtocolsSupports protocol for PROFINET IOSupports protocol for PROFINET IOYes• CICP/IPYes• CICP/IPYes• ARPYes• PROFINET IO DeviceYesServices IRTYes- PROFINET IO DeviceYesRedundancy modeYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line isideRedundancy mode IRPYes- MRPYes- MRPYes- MRPYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- Open IE communicationYes- Open IE communication Open IE communicationYes- Open IE communicationYes- NRPDYes- SNMPYes		Vec
• Media redundancy         Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring           Interact typs           RJ 45 (Ethemet)           • Transmission procedure         PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • 100 Mbps         No           • 100 Mbps         Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • Autocrossing         Yes           Protocols         Protocols (Ethemet)           • TCP/IP         Yes           • NMP         Yes           • IDD         Yes           PROFINET IO Device         Yes           Services         -           - IRT         Yes           PROFINET IO Device         Yes           Services         -           - IRT         Yes           - PROFINET IO Device         Yes           Services         -           - IRT         Yes           - PROFINET of Device         Yes           - PROFINET or Controllers with shared device, max.         4; per line side           Redurationary mode         -           - Number of 10 Controllers with shared device, max.         4; per line side           Redurationary mode         -           - MRP         Yes		
Interface types           R145 (Ethernet)           • Transmission procedure         PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • 100 Mbps         No           • 100 Mbps         Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)           • Autoregotiation         Yes           • Protocols         Emotion           Brotocols (Ethemet)         Yes           • SNMP         Yes           • SNMP         Yes           • ILIDP         Yes           • ILIDP         Yes           • ARP         Yes           PROFINET to Device         Escruces           - IRT         Yes           - Shared device         Yes           - NepOrlenergy         No           - NepOr for Ocortellers with shared device, max.         Yes in lie side           Redundancy mode         Yes           - Harpe         Yes           Media redundancy (S2)         Yes; NAP S2 ac	-	
RI 45 (Ethemet) <ul> <li>Transmission procedure</li> <li>PROFINET with 100 Mbit/s full duplex (100BASE-TX)</li> <li>N0</li> <li>N0 Mbps</li> <li>Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)</li> <li>Autoregotiation</li> <li>Yes</li> <li>Autorossing</li> <li>Yes</li> <li>Protocols</li> <li>Supports protocol for PROFINET IO</li> <li>Yes</li> <li>Protocol (Ethemet)</li> <li>TCP/IP</li> <li>Yes</li> <li>SNMP</li> <li>Yes</li> <li>ARP</li> <li>Yes</li> <li>PROFINET IO Device</li> <li>PROFINET IO Device</li> <li>PROFINET IO Device</li> <li>Services</li> <li>IRT</li> <li>Yes</li> <li>Shared device</li> <li>Yes</li> <li>No</li> <li>PRofinergy</li> <li>No</li> <li>PROFINET IO Controllers with shared device, max.</li> <li>4; per line side</li> <li>Redundancy mode</li> <li>Yes; NAP S2 acc. to IEC</li> <li>H-Sync forwarding</li> <li>Yes</li> <li>Media redundancy</li> <li>MRP</li> <li>Yes</li> <li>NaPD</li> <li>Yes</li> <li>Sinport forwarding</li> <li>Yes</li> <li>Sinport forwarding</li> <li>Yes</li> <li>NaPD</li> <li>Yes</li> <li>NaPD</li> <li>Yes</li> <li>NaPD</li> <li>Yes</li> <li>Sinport Sing</li> <li>Yes</li> <li>Yes</li></ul>		Tes, As MICE OF MICED Client, max. 50 OF 50 devices in the mig
• Transmission procedurePROFINET with 100 Mbit/s full duplex (100BASE-TX)• 10 MbpsNo• 100 MbpsYes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)• AutonegoliationYes• AutocrossingYesProtocols*********************************		
• 10 MbpsNo• 100 MbpsYes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)• AutoregotiationYes• AutoressingYesProtocolsSupports protocol for PROFINET IOYes• TCP/IPYes• SNMPYes• SNMPYes• SNMPYes• ILLDPYes• pingYes• pingYes• PROFINET IO DeviceYesServices IRTYes- PROFINET iD to DeviceYesServices IRTYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedurdancy modeYes- MRPYes- MRP <t< td=""><td></td><td></td></t<>		
• 100 MbpsYes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)• AutoregotiationYes• AutorossingYesProtocolsSupports protocol for PROFINET IOYesProtocols (Ethernet)Yes• TCP/IPYes• SNMPYes• LLDPYes• pingYes• ARPYesPROFINET IO DeviceYesServices IRTYes- PROFINET ub ceviceYesServices Number of IO Controllers with shared device, max4; per line sideRedundancy modeYes- MRPYes- S	-	
AutoeropsingYesProtocolsSupports protocol for PROFINET IOYesProtocols (Ethernet)• TCP/IPYes• TCP/IPYes• SNMPYes• LLDPYes• PROFINET IO DeviceYesPROFINET IO DeviceYesServices IRTYes- PROFInergyNo- PROFInergyYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes- HRPYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes- MRPYes- NMPDYes- SNMPYes	-	
AutocossingYesSupports protocol for PROFINET IOYesProtocols (Ethernet)Yes• TCP/IPYes• SNMPYes• SNMPYes• LLDPYes• pingYes• ARPYes• PROFINET IO DeviceYesServices IRTYes- PROFlenergyNo- PROFlenergyYes- Shared deviceYes- Number of IO Controllers with shared device, max.4, per line sideRedundancy mode HRTYes- Number of IO Controllers with shared device, max.4, per line sideRedundancy mode MRPYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- SNMPYes- SNMPYes- SNMPYes- SNMPYes		
Protocols           Supports protocol for PROFINET IO         Yes           Protocols (Ethernet)         ************************************	-	
Supports protocol for PROFINET IO       Yes         Protocols (Ethernet)       *         • TCP/IP       Yes         • SNMP       Yes         • SIMP       Yes         • LLDP       Yes         • ping       Yes         • ARP       Yes         PROFINET IO Device       *         Services       *         - IRT       Yes         - PROFINET startup       Yes         - PROFINET of IO Controllers with shared device, max.       4; per line side         Redundancy mode       *         • Number of IO Controllers with shared device, max.       4; per line side         Redundancy mode       *         • PROFINET system redundancy (S2)       Yes; NAP S2 acc. to IEC         • H-Sync forwarding       Yes         Media redundancy       Yes         - MRPD       Yes         Open IE communication       *         • TCP/IP       Yes         • SNMP       Yes	-	Tes
Protocols (Ethernet)• TCP/IPYes• SNMPYes• LLDPYes• LLDPYes• pingYes• ARPYesPROFINET IO DeviceYes- IRTYes- IRTYes- PROFIenergyNo- PROFIenergyYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes- HRPYes- MRPYes- MRPYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- SNMPYes- SNMPYes- SNMPYes- SNMPYes- SNMPYes		Vee
• TCP/IP         Yes           • SNMP         Yes           • LLDP         Yes           • ping         Yes           • ARP         Yes           PROFINET IO Device         Yes           PROFINET IO Device         Yes           - IRT         Yes           - PROFIenergy         No           - PROFIenergy         Yes           - Shared device         Yes           - Number of IO Controllers with shared device, max.         4; per line side           Redundancy mode         Yes; NAP S2 acc. to IEC           • H-Sync forwarding         Yes           Media redundancy (S2)         Yes; NAP S2 acc. to IEC           • MRP         Yes           - MRPD         Yes           Open IE communication         Yes           • TCP/IP         Yes           • SNMP         Yes		res
• SMMPYes• LLDPYes• pingYes• ARPYesPROFINET IO DeviceServices- IRTYes- PROF lenergyNo- PROF lenergyYes- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, maxYes- Number of IO Controllers with shared device, maxYes- Number of IO Controllers with shared device, maxYes inte sideRedundancy modeYes; NAP S2 acc. to IEC- H-Sync forwardingYes; NAP S2 acc. to IEC- MRPYes- MRPYes- MRPDYes- MRPDYes- MRPDYes- MRPDYes- NMRPYes- MRPYes- SNMPYes		Vee
• LLDPYes• ARPYesPROFINET IO DeviceYesServicesYes- IRTYes- PROFInergyNo- PROFInergyYes- Shared deviceYes- Nuber of IO Controllers with shared device, max.Yes- Number of IO Controllers with shared device, max.YesPROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC+ H-Sync forwardingYesMedia redundancyYes- MRPDYes- MRPYes- MRYes- MRYes- MRYes- MRYes- MRYes- MRYes <t< td=""><td></td><td></td></t<>		
• pingYes• ARPYesPROFINET IO DeviceServices- IRTYes- PROFlenergyNo- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes- PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC- H-Sync forwardingYesMRPYes- MRPDYes- MRPDYes- MRPDYes- SNMPYesSNMPYes		
ARPYesPROFINET IO DeviceServices-IRTYes-PROFlenergyNo-Prioritized startupYes-Shared deviceYes-Number of IO Controllers with shared device, max.4; per line sideRedundancy modePROFINET system redundancy (S2)Yes; NAP S2 acc. to IECH-Sync forwardingYesMedia redundancyYes-MRPYes-MRPDYesOpen IE communicationYes•TCP/IPYes•SNMPYes		
PROFINET IO DeviceServices- IRTYes- PROFlenergyNo- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy mode• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
Services- IRTYes- PROFlenergyNo- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes; NAP S2 acc. to IEC• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		res
- IRTYes- PROFlenergyNo- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes; NAP S2 acc. to IEC• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
PROFlenergyNoPRoFlenergyYesShared deviceYesNumber of IO Controllers with shared device, max.4; per line sideNumber of IO Controllers with shared device, max.4; per line sideRedundancy modeYes; NAP S2 acc. to IEC+ PROFINET system redundancy (S2)Yes; NAP S2 acc. to IECH-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes+ TCP/IPYes• SNMPYes		Vee
Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy modeYes; NAP S2 acc. to IEC• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
- Shared deviceYes- Number of IO Controllers with shared device, max.4; per line sideRedundancy mode• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
Number of IO Controllers with shared device, max.4; per line sideRedundancy mode7• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes MRPYes MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
Redundancy mode            • PROFINET system redundancy (S2)       Yes; NAP S2 acc. to IEC            • H-Sync forwarding       Yes         Media redundancy       Yes            - MRP         - MRPD       Yes         Open IE communication       Yes            • TCP/IP         • SNMP       Yes		
• PROFINET system redundancy (S2)Yes; NAP S2 acc. to IEC• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		4, per line side
• H-Sync forwardingYesMedia redundancyYes- MRPYes- MRPDYesOpen IE communicationYes• TCP/IPYes• SNMPYes		
Media redundancy         - MRP       Yes         - MRPD       Yes         Open IE communication       Yes         • TCP/IP       Yes         • SNMP       Yes		
MRP         Yes           MRPD         Yes           Open IE communication         Yes           • TCP/IP         Yes           • SNMP         Yes		res
MRPD         Yes           Open IE communication         Yes           • TCP/IP         Yes           • SNMP         Yes		Neg.
Open IE communication       • TCP/IP     Yes       • SNMP     Yes		
• TCP/IP Yes • SNMP Yes		Yes
• SNMP Yes		
• LLDP 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
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	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	
Network loading class	3
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:

8/8/2023 🖸