

Bus coupler - AXL BK PN - 2688019

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Axioline bus coupler for PROFINET (including bus base module and connector)

Product description

The bus coupler links a PROFINET network with the Axioline system.

Up to 63 Axioline devices can be connected at any point to an existing PROFINET system using the bus coupler.

For startup tests you can put the Axioline station into operation independent of the higher-level network either using the service interface or an Ethernet port at the bus coupler.

Product Features

- ✓ Up to 63 additional Axioline devices can be connected
- ✓ Firmware can be updated
- ✓ Minimum cycle time of PROFINET for RT is 250 μ s
- ✓ Diagnostic and status indicators
- ✓ Runtime in bus coupler is negligible (almost 0 μ s)
- ✓ PROFINET RT
- ✓ Typical cycle time of the Axioline system bus is around 10 μ s
- ✓ 2 RJ45 connections (with integrated switch)
- ✓ Module replacement without software



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 200.0 GRM |
| Custom tariff number | 85389091 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|--------|----------|
| Width | 40 mm |
| Height | 123.6 mm |

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Technical data

Dimensions

| | |
|--------------------|---|
| Depth | 75 mm |
| Note on dimensions | The depth is valid when a TH 35-7.5 DIN rail is used (according to EN 60715). |

Ambient conditions

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|--|---|
| Ambient temperature (operation) | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 5 % ... 95 % (according to DIN EN 61131-2) |
| Permissible humidity (storage/transport) | 5 % ... 95 % (according to DIN EN 61131-2) |
| Air pressure (operation) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Air pressure (storage/transport) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Degree of protection | IP20 |

Connection data

| | |
|--|---------------------|
| Designation | Axiline F connector |
| Connection method | Push-in technology |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 1.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 16 |

General

| | |
|---------------------------------|---|
| Weight | 173 g |
| Note on weight specifications | with connector |
| Mounting type | DIN rail |
| Protection class | III, IEC 61140, EN 61140, VDE 0140-1 |
| Conformance with EMC directives | Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B; 6 kV contact discharge, 8 kV air discharge |
| | Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A; Field intensity: 10 V/m |
| | Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV |
| | Noise immunity test in accordance with EN 61000-6-2 Transient surge voltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B; DC supply lines: ±0.5 kV/±0.5 kV (symmetrical/asymmetrical); fieldbus cable shield: ±1 kV |
| | Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A; Test voltage 10 V |
| | Noise emission test according to EN 61000-6-3 Radio interference properties EN 55022 Class B |

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General

| | |
|------------------|--|
| Mechanical tests | Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g |
| | Shock in acc. with EN 60068-2-27/IEC 60068-2-27 25g, 11 ms period, half-sine shock pulse |
| | Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g |

Interfaces

| | |
|----------------------|--|
| Fieldbus system | PROFINET |
| Designation | PROFINET |
| Connection method | RJ45 socket, auto negotiation and autocrossing |
| Transmission speed | 100 MBit/s (Full duplex) |
| Transmission physics | Ethernet in RJ45 twisted pair |
| Fieldbus system | Lokalbus |
| Designation | Axioline F local bus |
| Connection method | Connection for bus base module |
| Transmission speed | 100 MBit/s |
| Designation | Service |
| Connection method | IFS-USB-PROG-ADAPTER |

System limits of the bus coupler

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|---|-------------------------------------|
| Amount of process data | 1485 Byte (for each data direction) |
| Number of supported devices | max. 63 (per station) |
| Number of local bus devices that can be connected | max. 63 |

Power supply for module electronics

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|---------------------|------------------------------|
| Current consumption | max. 600 mA (from U_{BK}) |
| Power loss | typ. 2 W ((without I/Os)) |

Axioline potentials

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|--------------------------------------|--|
| Supply of communications power U_L | 24 V DC |
| Current consumption from U_L | typ. 86 mA (without I/Os and $U_L = 24$ V) |
| | max. 600 mA (with 2 A at U_{Bus} for the I/Os and $U_L = 24$ V) |
| | max. 750 mA (with 2 A load at U_{Bus} for the I/Os and $U_L = 19$ V) |
| Communications power U_{Bus} | 5 V DC (via bus base module) |
| Current supply at U_{Bus} | 2 A |

Digital inputs

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|-------------------|--------------------|
| Connection method | Push-in connection |
|-------------------|--------------------|

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27240490 |
| eCl@ss 4.1 | 27240490 |
| eCl@ss 5.0 | 27242208 |
| eCl@ss 5.1 | 27242608 |
| eCl@ss 6.0 | 27242608 |
| eCl@ss 7.0 | 27242608 |
| eCl@ss 8.0 | 27242608 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001604 |
| ETIM 4.0 | EC001604 |
| ETIM 5.0 | EC001604 |

UNSPSC

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|---------------|----------|
| UNSPSC 6.01 | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11 | 39121311 |
| UNSPSC 12.01 | 39121311 |
| UNSPSC 13.2 | 39121311 |

Approvals

Approvals


Approvals

UL Listed / cUL Listed / PROFIBUS / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| |
|---|
| UL Listed  |
|---|

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Approvals

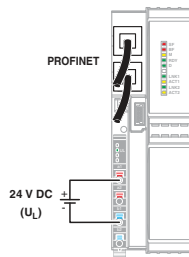
cUL Listed

PROFIBUS

cULus Listed

Drawings

Connection diagram



Dimensioned drawing

