

Bus coupler - AXL F BK ETH - 2688459

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Axioline F, Bus coupler, Modbus/TCP(UDP), RJ45 socket, transmission speed in the local bus: 100 Mbps, including bus base module and Axioline F connector

Product Description

The bus coupler is intended for use within a Modbus/TCP (UDP) network and represents the link to the Axioline F I/O system. Up to 63 Axioline F devices can be connected to the bus coupler.

Why buy this product

- ✓ 2 Ethernet ports (with integrated switch)
- ✓ Transmission speed of 10 Mbps and 100 Mbps
- ✓ Rotary coding switches for setting the IP address assignment and other functions
- ✓ Modbus/TCP (UDP) support
- ✓ BootP and DHCP
- ✓ Firmware can be updated
- ✓ Runtime in the bus coupler is negligible (almost 0 μ s) (for Modbus/UDP)
- ✓ Typical cycle time of the Axioline F local bus is around 10 μ s



Modbus/TCP (UDP)

Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 STK |
| GTIN | |
| GTIN | 4046356710770 |

Technical data

Dimensions

| | |
|--------------------|---|
| Width | 45 mm |
| Height | 126.1 mm |
| Depth | 74 mm |
| Note on dimensions | The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715). |

Ambient conditions

Bus coupler - AXL F BK ETH - 2688459

Technical data

Ambient conditions

| | |
|--|--|
| Ambient temperature (operation) | -25 °C ... 60 °C (Mounting position: wall mounting on horizontal DIN rail) |
| | -25 °C ... 55 °C (Mounting position: any) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 5 % ... 95 % (non-condensing) |
| 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 | Axioline F connector |
| Connection method | Push-in connection |
| Note on the connection method | Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual. |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 16 |
| Stripping length | 8 mm |

General

| | |
|-------------------------------|------------------------------------|
| Mounting type | DIN rail |
| Net weight | 177 g |
| Note on weight specifications | with connector and bus base module |

Interfaces

| | |
|-------------------------------|--|
| Designation | Modbus/TCP (UDP) |
| No. of channels | 2 |
| Connection method | RJ45 socket |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission speed | 10/100 Mbps (Half or full duplex mode (automatic detection, can be adjusted manually)) |
| Transmission physics | Ethernet in RJ45 twisted pair |
| Designation | Axioline F local bus |
| Connection method | Bus base module |
| Transmission speed | 100 Mbps |
| Designation | Service |
| Connection method | Micro USB type B |

System limits of the bus coupler

| | |
|---|-----------------------|
| Number of supported devices | max. 63 (per station) |
| Number of local bus devices that can be connected | max. 63 |

Bus coupler - AXL F BK ETH - 2688459

Technical data

Axioline potentials

| | |
|----------------------|--|
| Designation | Communications power U_L feed-in (the supply of the Axioline F local bus U_{Bus} is generated from U_L) |
| Supply voltage | 24 V DC |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current consumption | max. 583 mA (with 2 A at U_{Bus} for the I/Os and $U_L = 24$ V) |
| Power consumption | max. 14 W (with 2 A load at U_{Bus} for the I/Os) |
| Designation | Axioline F local bus supply (U_{Bus}) |
| Supply voltage | 5 V DC (via bus base module) |
| Power supply unit | 2 A |
| Type of protection | Surge protection of the supply voltage |
| | Polarity reversal protection of the supply voltage |

Standards and Regulations

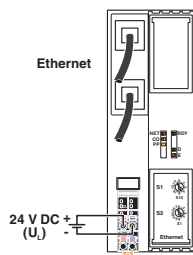
| | |
|------------------|---|
| Mechanical tests | Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g |
| | Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g |
| | Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g |
| Protection class | III, IEC 61140, EN 61140, VDE 0140-1 |

Environmental Product Compliance

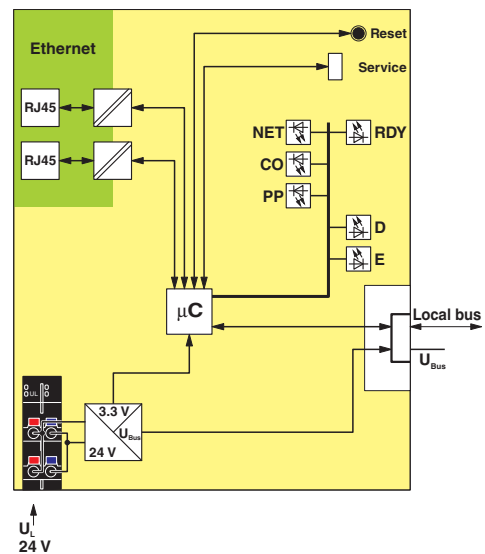
| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Connection diagram



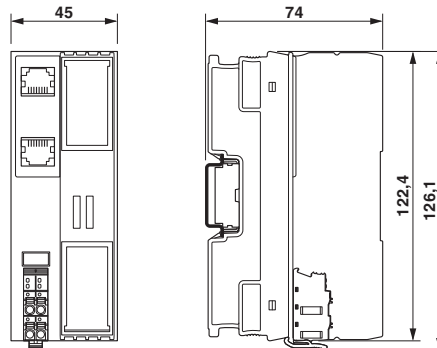
Block diagram



Internal wiring of the terminal points

Bus coupler - AXL F BK ETH - 2688459

Dimensional drawing



Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>