

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

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 documentation. Our General Terms of Use for Downloads are valid.



Axioline F, Bus coupler, EtherNet/IP™, RJ45 jack, Extreme conditions version, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connector

Product Description

The bus coupler is intended for use within an EtherNet/IP™ network. It is the link to the Axioline F I/O system. Up to 63 Axioline F devices can be connected to the bus coupler. A corresponding EDS file is available for integrating the Axioline F station into the programming system. This file can be downloaded at: phoenixcontact.net/product/1167192.

Your advantages

- 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
- Firmware can be updated
- Runtime in bus coupler is negligible (almost 0 μ s)
- Typical cycle time of the Axioline F local bus is around 10 μ s
- Web-based management
- Supports the operation of Axioline Smart Elements
- Supports IOL-CONF (firmware version 1.30 and later)
- Supports Diag+
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Partially coated PCBs

Commercial Data

| | |
|--------------------------------------|---------------|
| Item number | 1167192 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | DRI21D |
| Product Key | DRI21D |
| GTIN | 4063151184674 |
| Weight per Piece (including packing) | 223 g |
| Weight per Piece (excluding packing) | 177 g |
| Country of origin | DE |

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Technical Data

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 45 mm |
| Height | 126.1 mm |
| Depth | 74 mm |
| Note on dimensions | The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715). |

Material specifications

| | |
|-------|-------------------------|
| Color | traffic grey A RAL 7042 |
|-------|-------------------------|

Interfaces

EtherNet/IP™

| | |
|-------------------------------|--|
| Number of interfaces | 2 |
| Connection method | RJ45 jack |
| 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 |

Axioline F local bus

| | |
|----------------------|-----------------|
| Number of interfaces | 1 |
| Connection method | Bus base module |
| Transmission speed | 100 Mbps |

Service

| | |
|----------------------|------------|
| Number of interfaces | 1 |
| Connection method | USB type C |

System properties

System limits

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

Product properties

| | |
|------|---------------|
| Type | block modular |
|------|---------------|

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

| | |
|-------------------|--|
| Product type | I/O component |
| Mounting position | any (observe temperature derating) |
| Scope of delivery | including bus base module and Axioline F connector |

Insulation characteristics

| | |
|----------------------|------------------------------|
| Overvoltage category | II (IEC 60664-1, EN 60664-1) |
| Pollution degree | 2 (IEC 60664-1, EN 60664-1) |

Electrical properties

Potentials: 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 draw | max. 670 mA (2.5 A on U_{BUS} , $U_L = 24$ V) max. 583 mA (2.0 A at U_{BUS} , $U_L = 24$ V, applications with UL approval, use in zone 2 potentially explosive area) |
| Power consumption | max. 16 W (2.5 A on U_{BUS} , $U_L = 24$ V) max. 14 W (2.0 A at U_{BUS} , $U_L = 24$ V, applications with UL approval, use in zone 2 potentially explosive area) |
| Protective circuit | Surge protection; electronic Reverse polarity protection; electronic |

Potentials: Axioline F local bus supply (U_{BUS})

| | |
|-------------------|--|
| Supply voltage | 5 V DC (via bus base module) |
| Power supply unit | max. 2.5 A max. 2 A (Applications with UL approval, use in zone 2 potentially explosive area) |

Connection data

Connection technology

| | |
|-------------------------------|---|
| Connection name | Axioline F connector |
| Note on the connection method | Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual. |

Conductor connection

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Conductor cross section solid | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 24 ... 16 |
| Stripping length | 8 mm |

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, rigid | 0.2 mm ² ... 1.5 mm ² |
| Stripping length | 8 mm |

Ambient conditions

| | |
|--|---|
| Ambient temperature (operation) | -25 °C ... 60 °C (Standard, applications with UL approval, use in zone 2 potentially explosive area; mounting position: wall mounting on horizontal DIN rail) |
| | -25 °C ... 55 °C (Standard, applications with UL approval, use in zone 2 potentially explosive area; mounting position: any) |
| | -40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.) |
| Degree of protection | IP20 |
| 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) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 5 % ... 95 % (non-condensing) |

Standards and regulations

| | |
|------------------|---------------------------------------|
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|

Approval data

ATEX

| | |
|----------------|--------------------------|
| Identification | □ II 3 G Ex ec IIC T4 Gc |
| Certificate | UL 20 ATEX 2241X |

IECEX

| | |
|----------------|--------------------|
| Identification | Ex ec IIC T4 Gc |
| Certificate | IECEX ULD 20.0026X |

UL, USA / Canada

| | |
|----------------|---------|
| Identification | cULus |
| Certificate | E238705 |

UL Ex, USA / Canada

| | |
|----------------|---|
| Identification | Class I, Zone 2, AEx ec IIC T4, Ex ec IIC T4 Gc X |
| | Class I, Div. 2, Groups A, B, C, D T4 |
| Certificate | E366272 |

Mounting

| | |
|-------------------|------------------------------------|
| Mounting type | DIN rail mounting |
| Mounting position | any (observe temperature derating) |

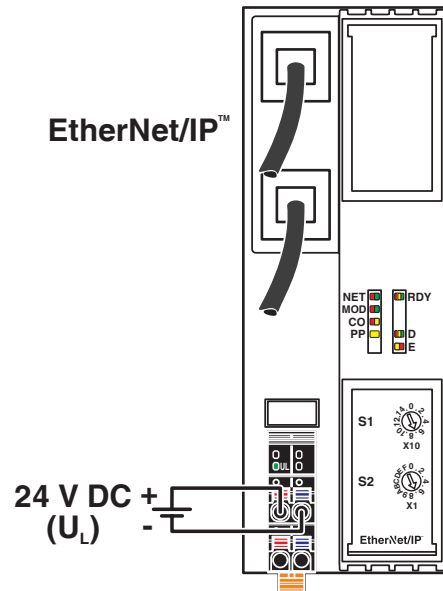
Bus coupler - AXL F BK EIP XC

1167192

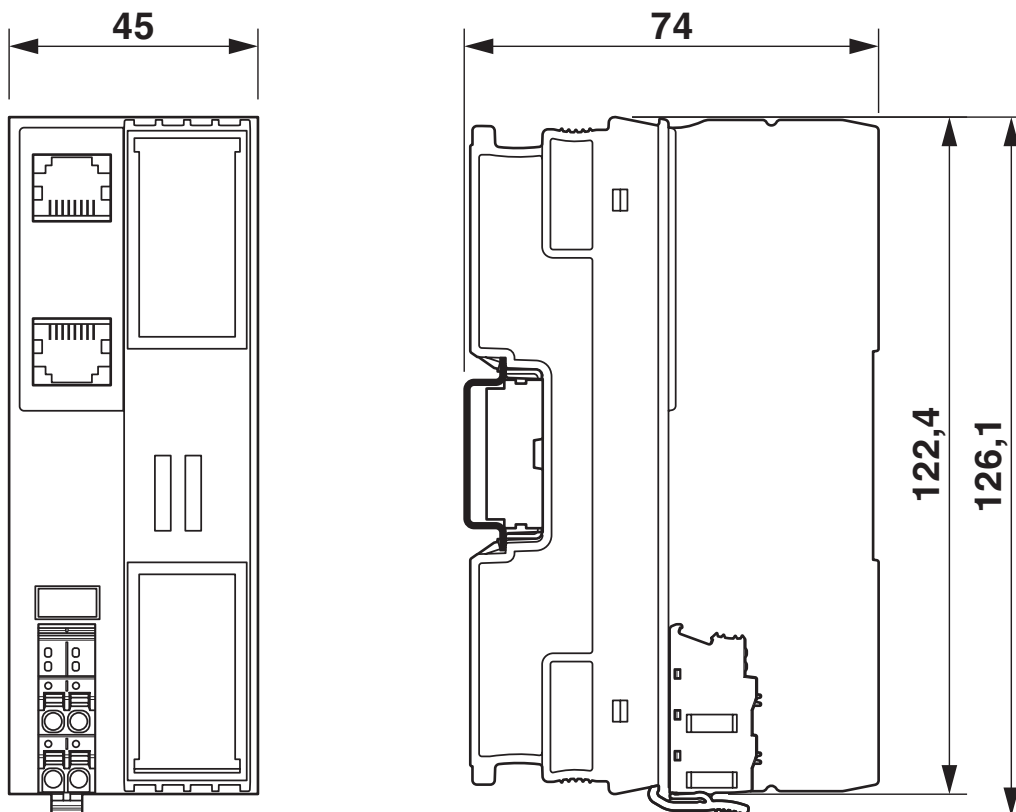
<https://www.phoenixcontact.com/nz/products/1167192>

Drawings

Connection diagram



Dimensional drawing

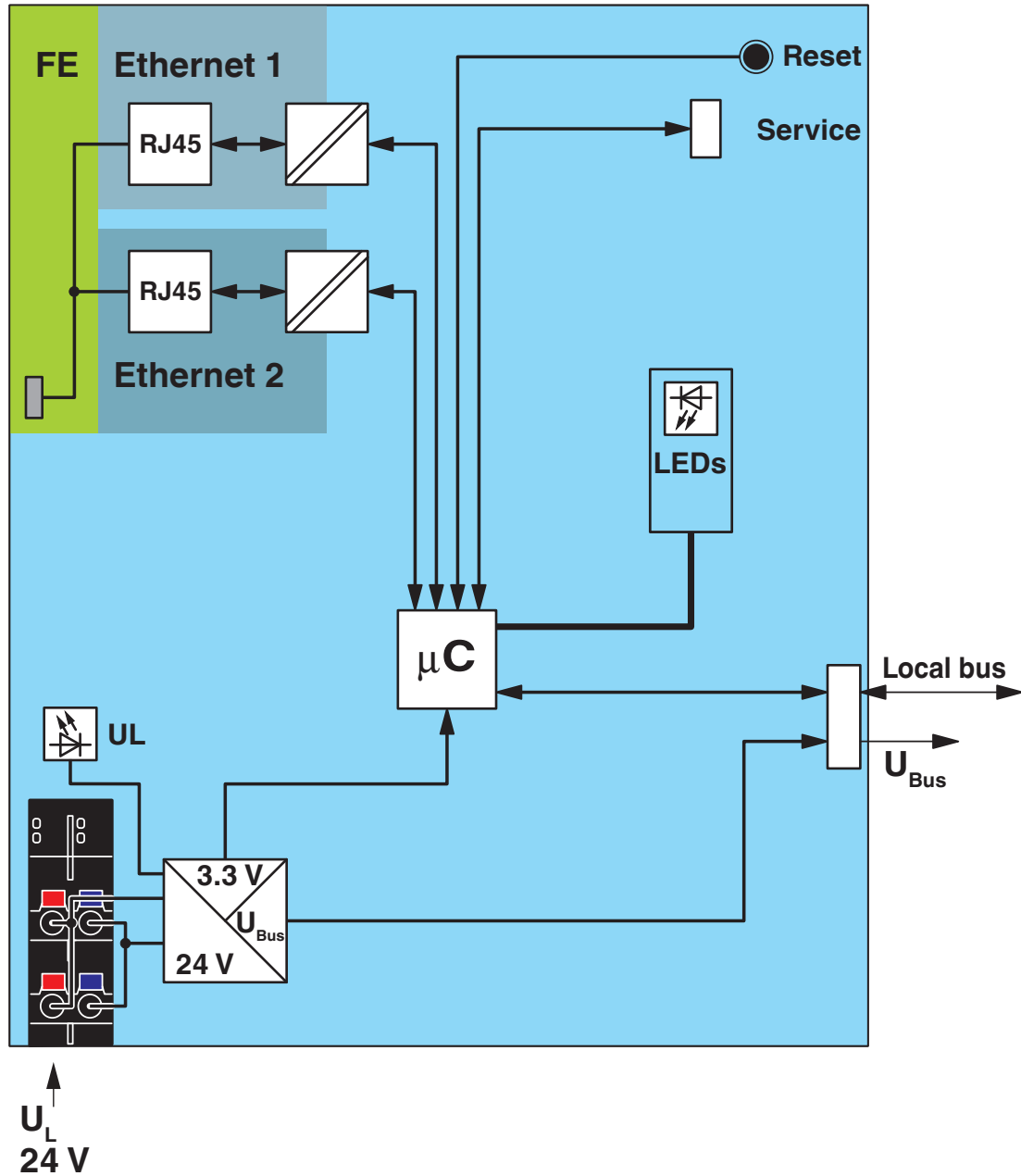


Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Block diagram



Internal wiring of the terminal points

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Approvals



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



IECEX

Approval ID: IECEX ULD 20.0026X



ATEX

Approval ID: UL 20 ATEX 2441X



cULus Listed

Approval ID: FILE E 366272

cULus Listed

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27242608 |
| ECLASS-10.0.1 | 27242608 |
| ECLASS-11.0 | 27242608 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC001604 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 32151600 |
|-------------|----------|

Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>



Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>



Accessories

Bus connector

Bus connector - AXL F BS BK - 2701422

<https://www.phoenixcontact.com/nz/products/2701422>

Axioline F bus base module for housing type BK

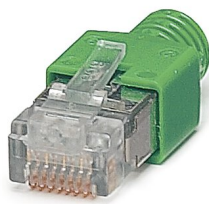


RJ45 connector

RJ45 connector - FL PLUG RJ45 GR/2 - 2744856

<https://www.phoenixcontact.com/nz/products/2744856>

RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.



Bus coupler - AXL F BK EIP XC

1167192

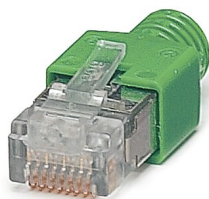
<https://www.phoenixcontact.com/nz/products/1167192>



RJ45 connector

RJ45 connector - FL PLUG RJ45 GN/2 - 2744571

<https://www.phoenixcontact.com/nz/products/2744571>



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

Network cable

Network cable - FL CAT5 HEAVY - 2744814

<https://www.phoenixcontact.com/nz/products/2744814>



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm², solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>



Installation cable

Installation cable - FL CAT5 FLEX - 2744830

<https://www.phoenixcontact.com/nz/products/2744830>



By the meter, Installation cable, Ethernet CAT5 (100 Mbps), shielded, PUR halogen-free, water blue RAL 5021, 4-wire (2x2xAWG26/7; SF/UTP), color single wire: white/orange-orange, white/green-green, cable length: Free entry (1.0 ... 1000.0 m)

Assembly tool

Assembly tool - FL CRIMPTOOL - 2744869

<https://www.phoenixcontact.com/nz/products/2744869>



Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site

Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Zack marker strip

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579

<https://www.phoenixcontact.com/nz/products/0829579>



Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580

<https://www.phoenixcontact.com/nz/products/0829580>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.15 mm, lettering field size: 4 of 10.15 x 5 mm and 1 of 5.8 x 5 mm, Number of individual labels: 50

Bus coupler - AXL F BK EIP XC



1167192

<https://www.phoenixcontact.com/nz/products/1167192>

Insert label

Insert label - EMT (35X18,7)R - 0801831

<https://www.phoenixcontact.com/nz/products/0801831>



Insert label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped, lettering field size: 35 x 18.7 mm, Number of individual labels: 500

Connecting cable

Connecting cable - CAB-USB C/ USB C/1,8M - 1021809

<https://www.phoenixcontact.com/nz/products/1021809>

Connecting cable, for connecting the controller to a PC from USB C to USB C



Bus coupler - AXL F BK EIP XC

1167192

<https://www.phoenixcontact.com/nz/products/1167192>



Connecting cable

Connecting cable - CAB-USB A/ USB C/1,8M - 2404677

<https://www.phoenixcontact.com/nz/products/2404677>

Connecting cable, for connecting the controller to a PC from USB A to USB C



Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd

Unit 15C, 906-930 Great South Road, Penrose

Auckland 1061

0508 474 636

sales@phoenixcontact.co.nz