

# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

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 P bus coupler for PROFINET. Connects to PROFIBUS PA power supplies and Axioline P I/O modules along the Axioline P local bus (includes power supply connector and bus base module).

## Product description

The bus coupler is the link between a PROFINET network and the Axioline P system.

This system allows up to eight redundant PROFIBUS PA segments and up to 63 Axioline P I/O modules that may be connected to an existing PROFINET system using the bus coupler.

## Commercial data

Item number	2316390
Packing unit	1 pc
Sales key	DR06
Product key	DRIP1A
Catalog page	Page 98 (C-6-2019)
GTIN	4055626368382
Weight per piece (including packing)	321 g
Weight per piece (excluding packing)	259 g
Customs tariff number	85176200
Country of origin	US

# AXL P BK PN AF - Bus coupler

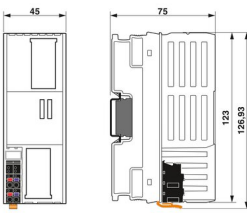


2316390

<https://www.phoenixcontact.com/us/products/2316390>

## Technical data

### Dimensions

Dimensional drawing	
Width	45 mm
Height	126.93 mm
Depth	75 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

#### Utilization restriction

CCcex note	Use in potentially explosive areas is not permitted in China.
------------	---

### Material specifications

Color	gray
-------	------

### Interfaces

#### Axioline P local bus

Connection method	Connection for bus base module
Transmission speed	100 Mbps

#### PROFINET

No. of channels	2
Connection method	RJ45 socket, auto negotiation and auto crossing
Transmission speed	100 Mbps (Full duplex)
Transmission physics	Ethernet in RJ45 twisted pair

#### Fieldbus: Local bus gateway

Max. number of local bus devices	63 (Redundant PROFIBUS PA segments and AXL P I/O modules. Consider the logic current consumed by the devices.)
----------------------------------	--

### System properties

#### System limits

Number of supported devices	max. 8 (per redundant PROFIBUS PA segments)
-----------------------------	---

# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

	max. 63 (per station)
--	-----------------------

## PROFINET

Device function	PROFINET device
-----------------	-----------------

## Product properties

Type	block modular
Product type	I/O component
Product family	Axioline P
Mounting position	any
Scope of delivery	including bus base module and connectors

## Insulation characteristics

Overvoltage category	II
Pollution degree	2

## Electrical properties

Maximum power dissipation for nominal condition	5 W
---	-----

## Potentials

Protective circuit	Surge protection of the supply voltage; electronic
	Polarity reversal protection of the supply voltage; electronic

## Potentials: Supply of the bus coupler

Supply voltage	24 V DC ( $U_L$ )
Supply voltage range	19.2 V DC ... 30 V DC
Current draw	4.15 A (19.2 V DC)
	125 mA (24 V DC)

## Potentials: Supply of the Axioline P local bus $U_{Bus}$

Supply voltage	5 V DC (via bus base module)
Power supply unit	2 A
Current draw	3 A (via bus base module)

## Potentials: Axioline P extension module supply voltage

Supply voltage	$U_L$ (via bus base module)
Current draw	3 A (via bus base module)

## Connection data

### Connection technology

Connection name	Power supply
-----------------	--------------

### Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16

# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

Stripping length	8 mm
Power supply	
Connection method	Push-in connection
Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C (Mounting position: wall mounting on horizontal DIN rail)
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 2000 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)
------------------	---------------------------------------

## Approvals

### ATEX

Identification	⊕ II 3 G Ex ec IIC T4 Gc
Certificate	IBExU 18ATEXB018 X

### IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX IBE 18.0023X

### UKCA Ex (UKEX)

Identification	II 3G Ex ec IIC T4 Gc X
Certificate	PxCAI22UKEx2316390X

### Ex data

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, IIC T4
------------------	--

## Mounting

Mounting type	DIN rail mounting
Mounting position	any

# AXL P BK PN AF - Bus coupler

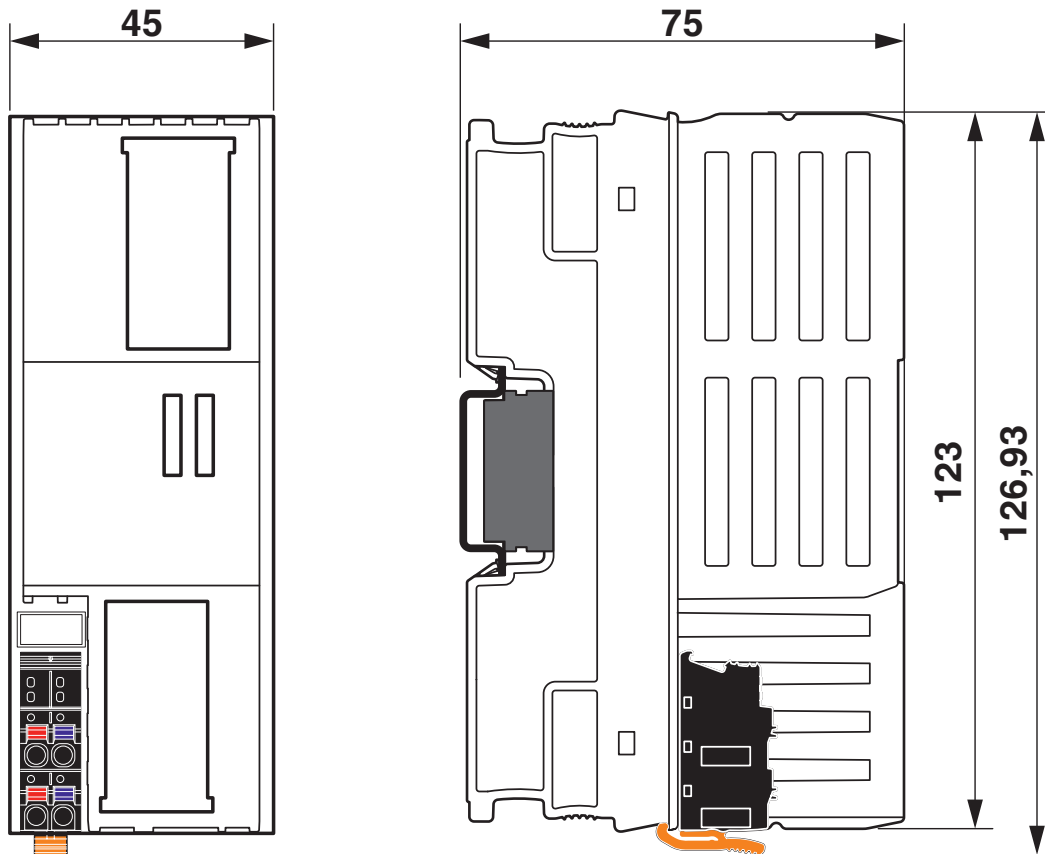
2316390

<https://www.phoenixcontact.com/us/products/2316390>



## Drawings

Dimensional drawing



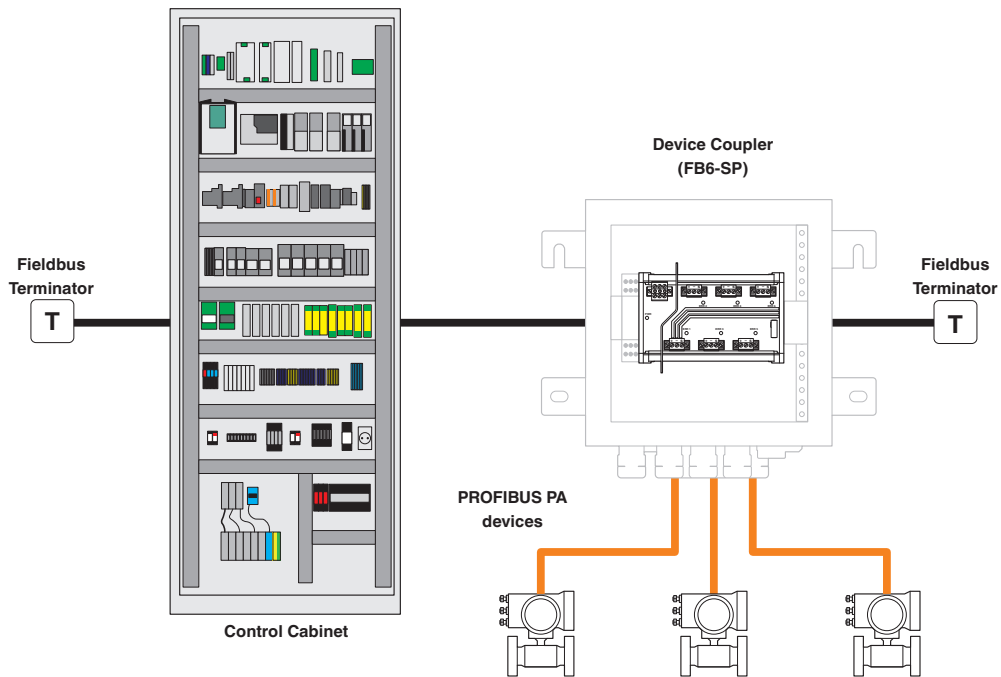
# AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



Application drawing



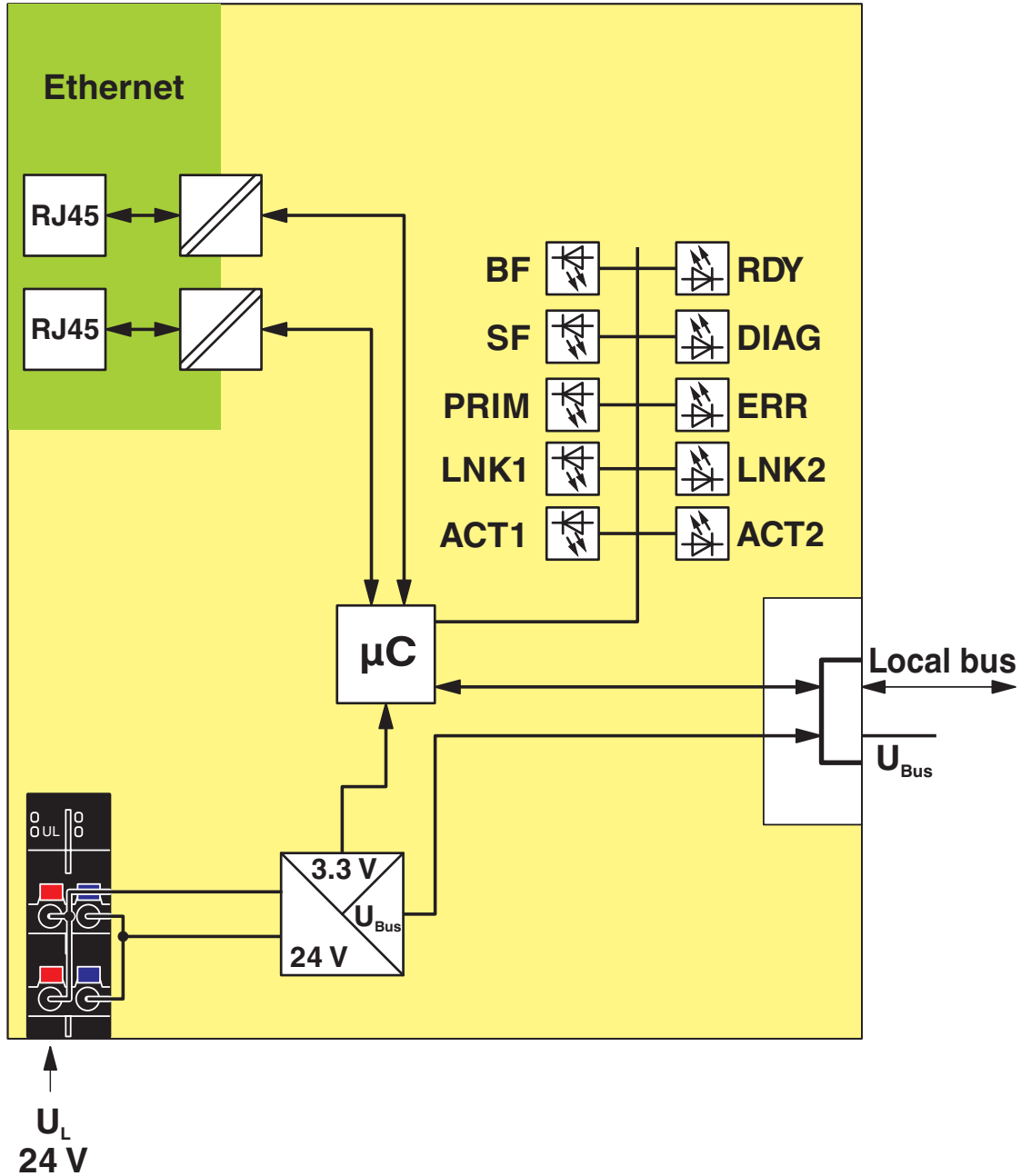
# AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



Block diagram



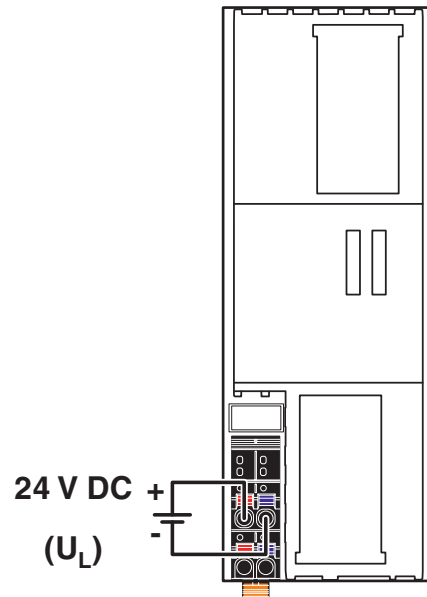
# AXL P BK PN AF - Bus coupler

2316390

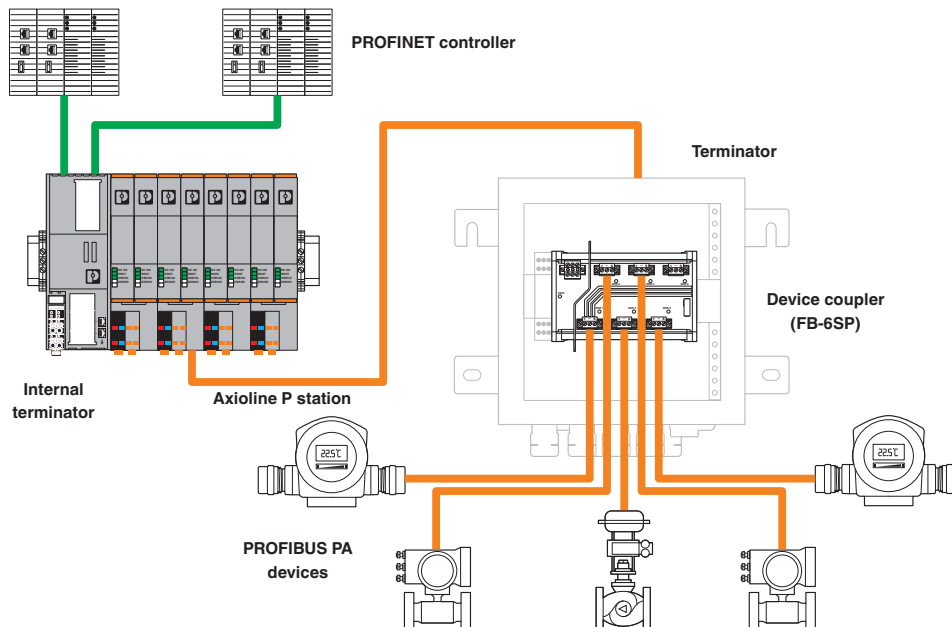
<https://www.phoenixcontact.com/us/products/2316390>



Connection diagram



Application drawing





# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2316390>



**EAC**

Approval ID: RU C-DE.\*\*08.B.00520



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**IECEx**

Approval ID: IECEx IBE 18.0023X



**cUL Listed**

Approval ID: FILE E 196811



**UL Listed**

Approval ID: FILE E 196811



**ATEX**

Approval ID: IBExU 18 ATEX B018 X



**CCC**

Approval ID: 2021122310114877

**cULus Listed**

**cULus Listed**

# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

## Classifications

### ECLASS

ECLASS-11.0	27242608
ECLASS-12.0	27242608
ECLASS-13.0	27242608

### ETIM

ETIM 9.0	EC001604
----------	----------

### UNSPSC

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

# AXL P BK PN AF - Bus coupler



2316390

<https://www.phoenixcontact.com/us/products/2316390>

## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25; For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

# AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



## Accessories

### AXL P FBPS 28DC/0.5A - Power module

2316394

<https://www.phoenixcontact.com/us/products/2316394>



Axioline P redundant power supply plug for the PROFIBUS PA power supply base. Provides 500 mA @ 28 V DC to Fieldbus couplers along the trunk.

---

### AXL P FBPS BASE - Base module

2316393

<https://www.phoenixcontact.com/us/products/2316393>



Axioline P base for PROFIBUS PA power supply plugs. Provides Fieldbus power supply redundancy when two plugs are installed.

## AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



## AXL SHIELD SET - Shield connection

2700518

<https://www.phoenixcontact.com/us/products/2700518>

Axioline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)



---

## AXL P BS G1 - Bus connector

1052430

<https://www.phoenixcontact.com/us/products/1052430>

Axioline P bus base module for housing type G1



# AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



## AXL P TERM PAIR - Termination block

2316402

<https://www.phoenixcontact.com/us/products/2316402>



Axioline P terminator pair

---

## AXL F/P IO EX PP - Separating plate

1100201

<https://www.phoenixcontact.com/us/products/1100201>



Axioline F/P partition plate for intrinsically safe modules

## AXL P BK PN AF - Bus coupler

2316390

<https://www.phoenixcontact.com/us/products/2316390>



## AXL P TERM PAIR - Termination block

2316402

<https://www.phoenixcontact.com/us/products/2316402>



Axioline P terminator pair

---

## AXL P BS G1 - Bus connector

1052430

<https://www.phoenixcontact.com/us/products/1052430>



Axioline P bus base module for housing type G1

---

Phoenix Contact 2023 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)