

# AXL P BK PN AF - Bus coupler



2316390

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

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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

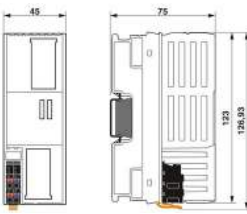


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## Technical data

### 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
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### 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)

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	max. 63 (per station)
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## PROFINET

Device function	PROFINET device
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## 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
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## 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
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### 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

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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)
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## 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
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## Mounting

Mounting type	DIN rail mounting
Mounting position	any

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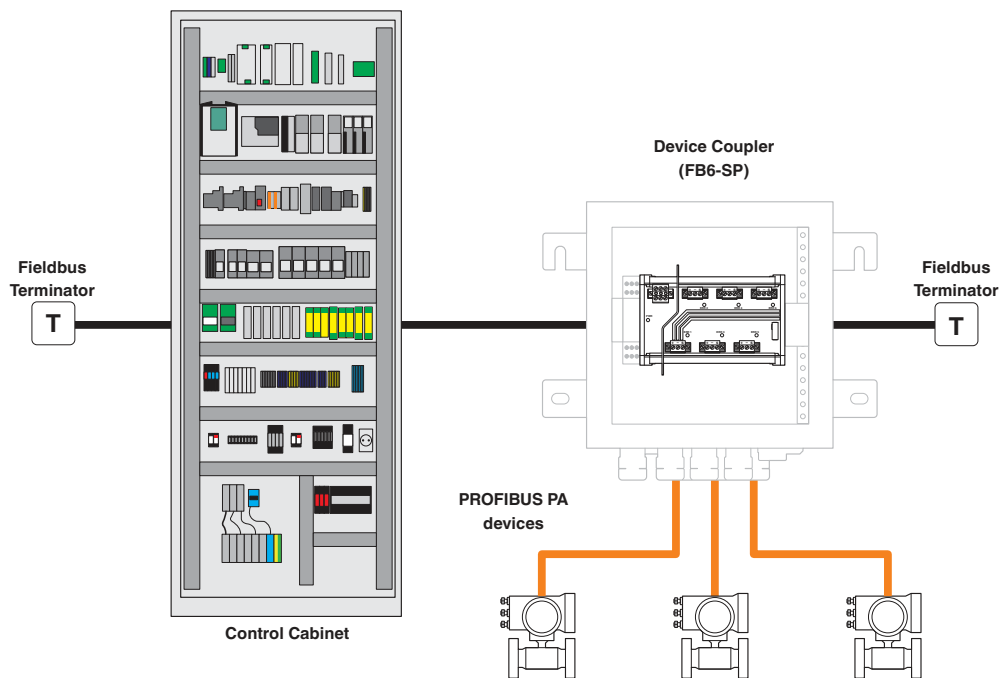
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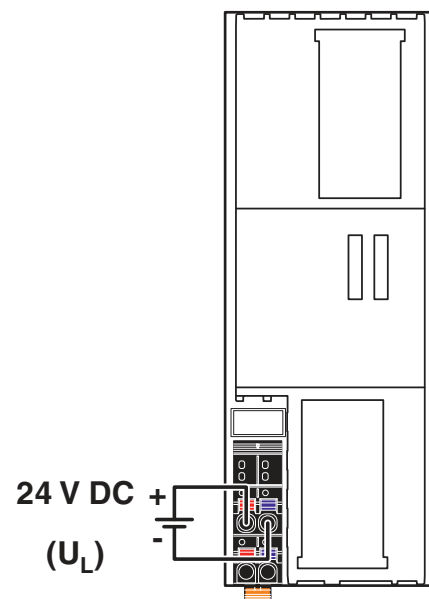


## Drawings

### Application drawing



### Connection diagram



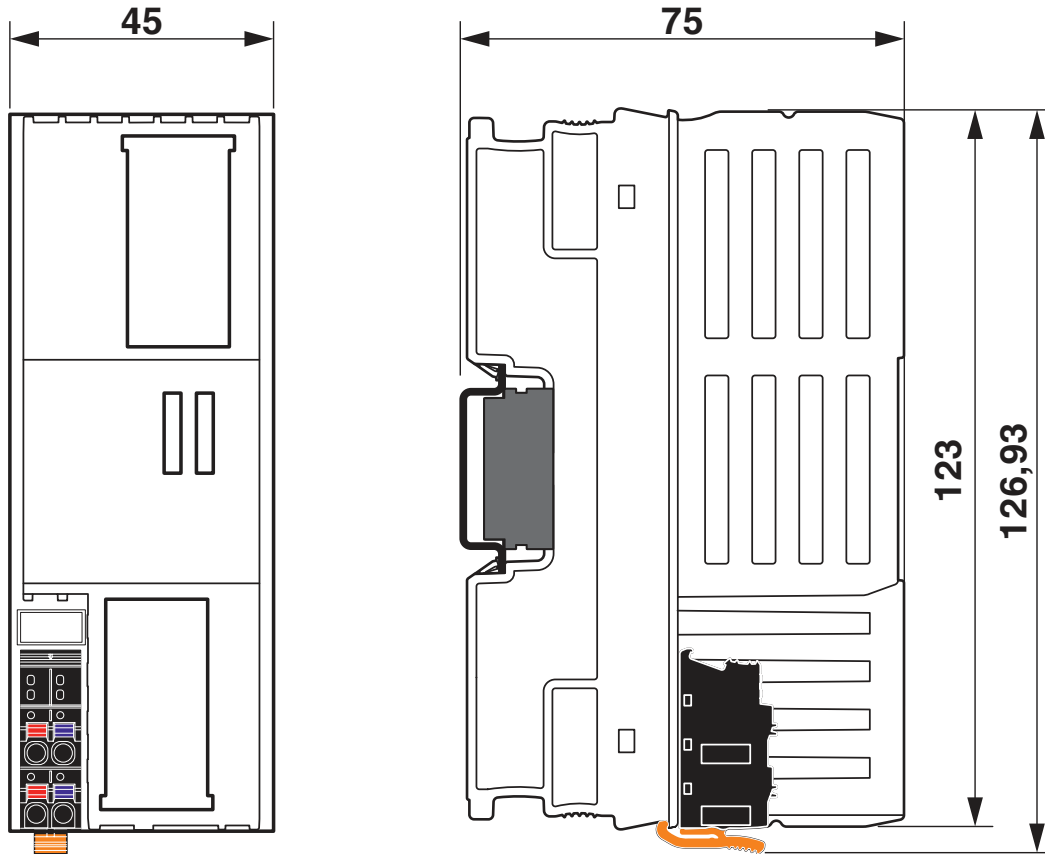
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Dimensional drawing



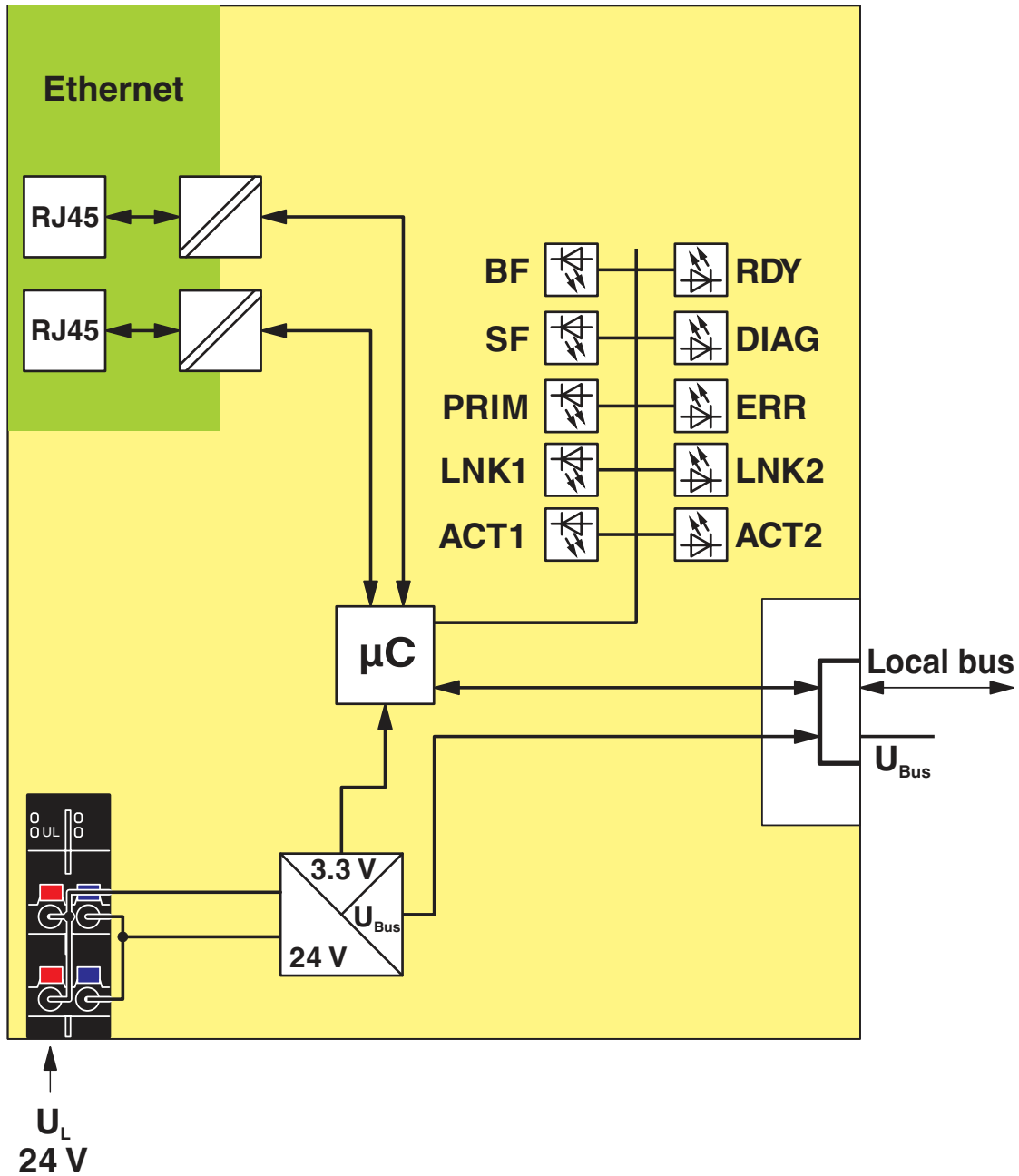
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Block diagram



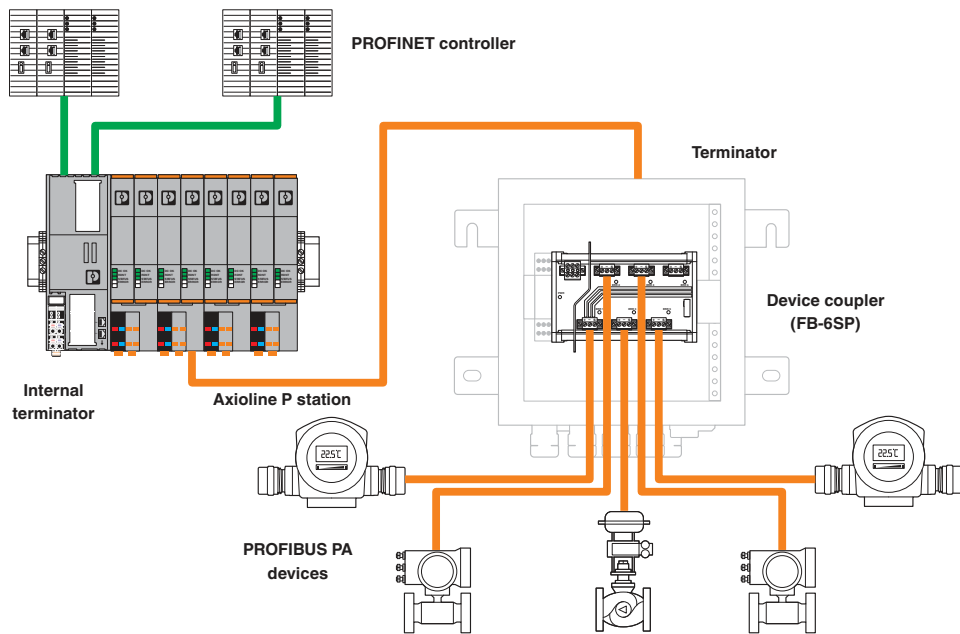
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## Application drawing





# AXL P BK PN AF - Bus coupler



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## 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**

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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001604
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### UNSPSC

UNSPSC 21.0	32151600
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## 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"

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## Accessories

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

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<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.

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### AXL P FBPS BASE - Base module

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

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## AXL SHIELD SET - Shield connection

2700518

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



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## AXL P BS G1 - Bus connector

1052430

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

Axioline P bus base module for housing type G1



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## AXL P TERM PAIR - Termination block

2316402

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Axioline P terminator pair

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## 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

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## AXL P TERM PAIR - Termination block

2316402

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Axioline P terminator pair

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## AXL P BS G1 - Bus connector

1052430

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



Axioline P bus base module for housing type G1

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