

AXL P BK PN AF - Bus coupler

2316390

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



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Axioline P, Bus coupler, PROFINET, RJ45 socket, auto negotiation and auto crossing, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and connectors

Product description

The bus coupler is intended for use within a PROFINET network. The bus coupler creates the link to the Axioline P PROFIBUS PA segments and the PROFIBUS PA signals connected to them. Up to eight redundant Axioline P PROFIBUS PA segments can be connected to the bus coupler.

Your advantages

- 2 Ethernet ports (with integrated switch)
- PROFINET RT
- Supports S2 system redundancy
- Supports eight redundant PROFIBUS PA segments with up to 256 PROFIBUS PA instruments
- Hot-swappable
- Firmware can be updated
- High temperature operating range

Commercial data

Item number	2316390
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR06
Product key	DRIP1A
GTIN	4055626368382
Weight per piece (including packing)	321 g
Weight per piece (excluding packing)	259 g
Customs tariff number	85176200
Country of origin	US

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Technical data

Dimensions

Dimensional drawing	
	45 mm
	75 mm
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

Note on application

Note on application	Only for industrial use
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Utilization restriction

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

CCCx note	Use in potentially explosive areas is not permitted in China.
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Interfaces

Axioline P local bus

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

PROFINET

Number of interfaces	2
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.)
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System properties

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System limits

Number of supported devices	max. 8 (per redundant PROFIBUS PA segments) max. 63 (per station)
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PROFINET

Device function	PROFINET device
Specification	Version 2.3
Conformance Class	Conformance-Class C
Device ID	0148 _{hex}
Vendor ID	00B0 _{hex}

Product properties

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

Insulation characteristics

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

Electrical properties

Maximum power dissipation for nominal condition	5 W
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Potentials: Supply of the bus coupler (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. 4.15 A (19.2 V DC) max. 3 A (via bus base module) 125 mA (24 V DC)
Protective circuit	Surge protection; electronic Reverse polarity protection; electronic

Potentials: Axioline P local bus supply (U_{Bus})

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

Electrical isolation/isolation of the voltage ranges

Test voltage: PROFINET interface 1 / PROFINET interface 2	1500 V AC, 50 Hz, 1 min
Test voltage: PROFINET interface 1 / 24 V communications voltage (U_L) feed-in	1500 V AC, 50 Hz, 1 min
Test voltage: PROFINET interface 1 / functional ground	1500 V AC, 50 Hz, 1 min
Test voltage: PROFINET interface 2 / 24 V communications voltage (U_L) feed-in	1500 V AC, 50 Hz, 1 min
Test voltage: PROFINET interface 2 / functional ground	1500 V AC, 50 Hz, 1 min

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Test voltage: 24 V communications voltage (U_L) feed-in / functional ground	500 V AC, 50 Hz, 1 min
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Connection data

Connection technology

Connection name	Power supply
Note on the connection method	Please observe the information provided on conductor cross-sections in the "Axoline P: System and installation" user manual.

Conductor connection

Connection method	Push-in connection
Conductor cross-section rigid	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

Power supply

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross-sections in the "Axoline P: System and installation" user manual.
Conductor cross-section, rigid	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

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C (Mounting position: panel mounting on horizontal DIN rail)
	-40 °C ... 50 °C (Mounting position: any)
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	Ex II 3 G Ex ec IIC T4 Gc
Certificate	IBExU 18ATEXB018 X

IECEx

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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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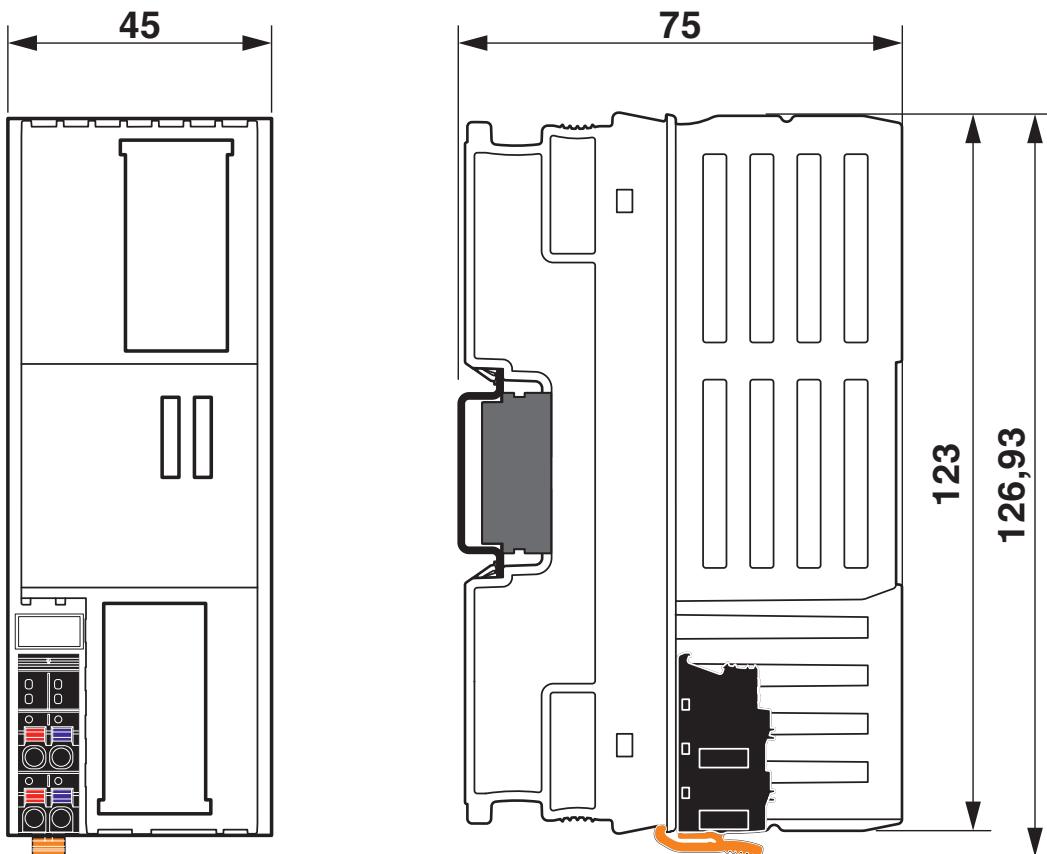
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Drawings

Dimensional drawing



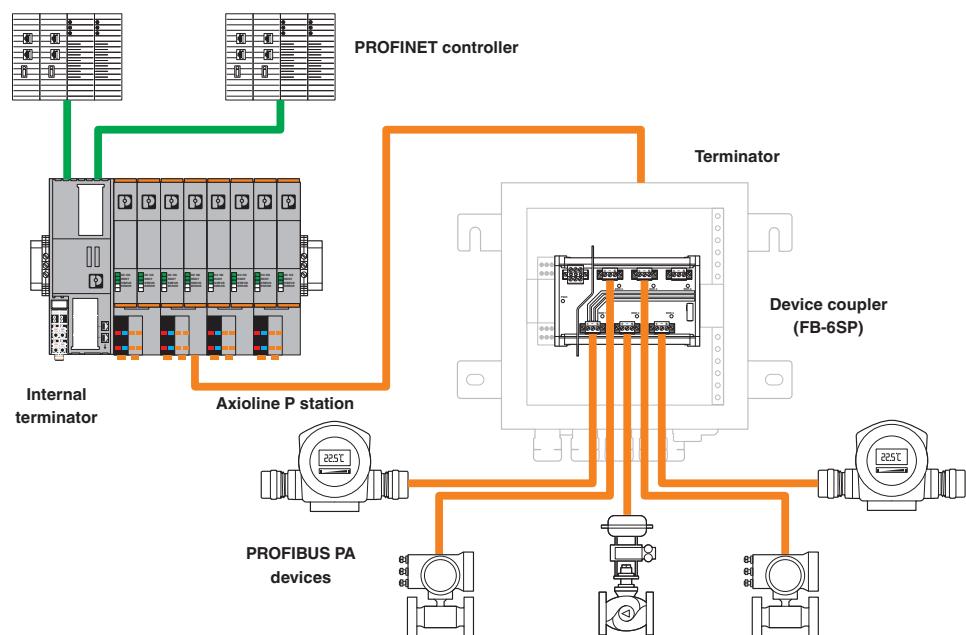
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Application drawing



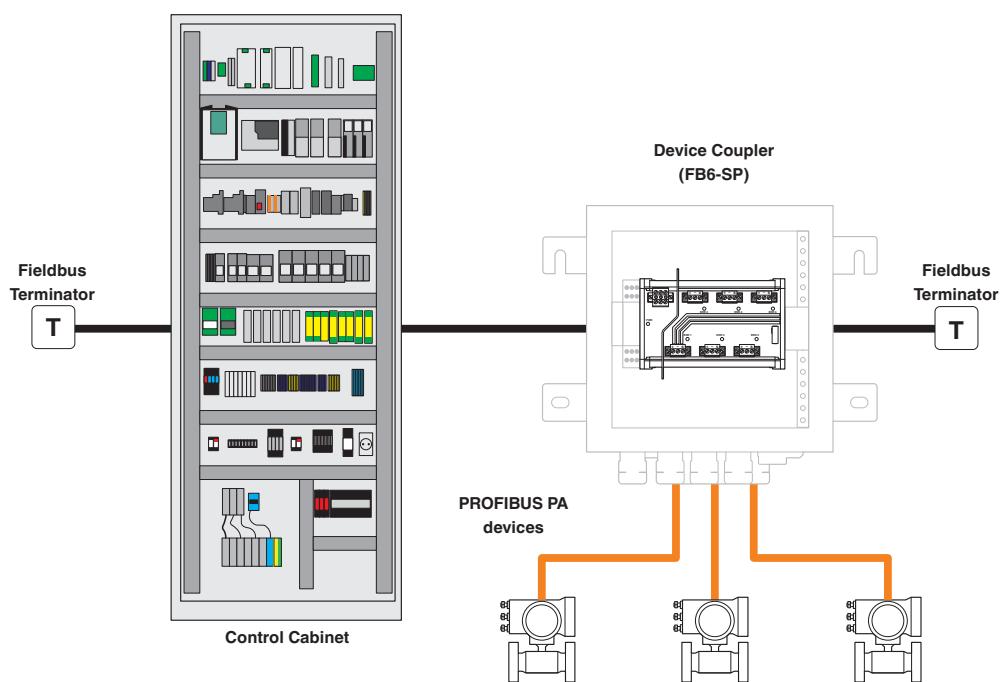
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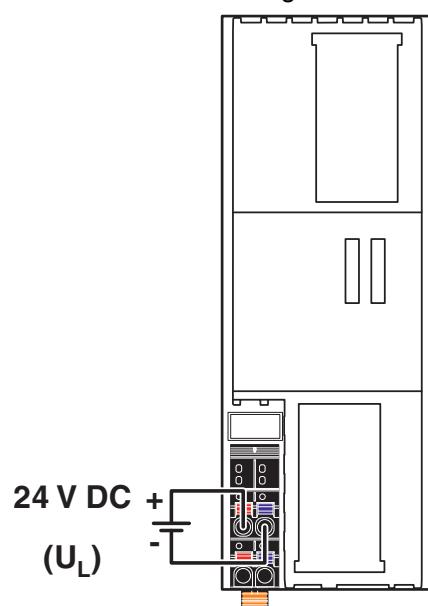
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Application drawing



Connection diagram



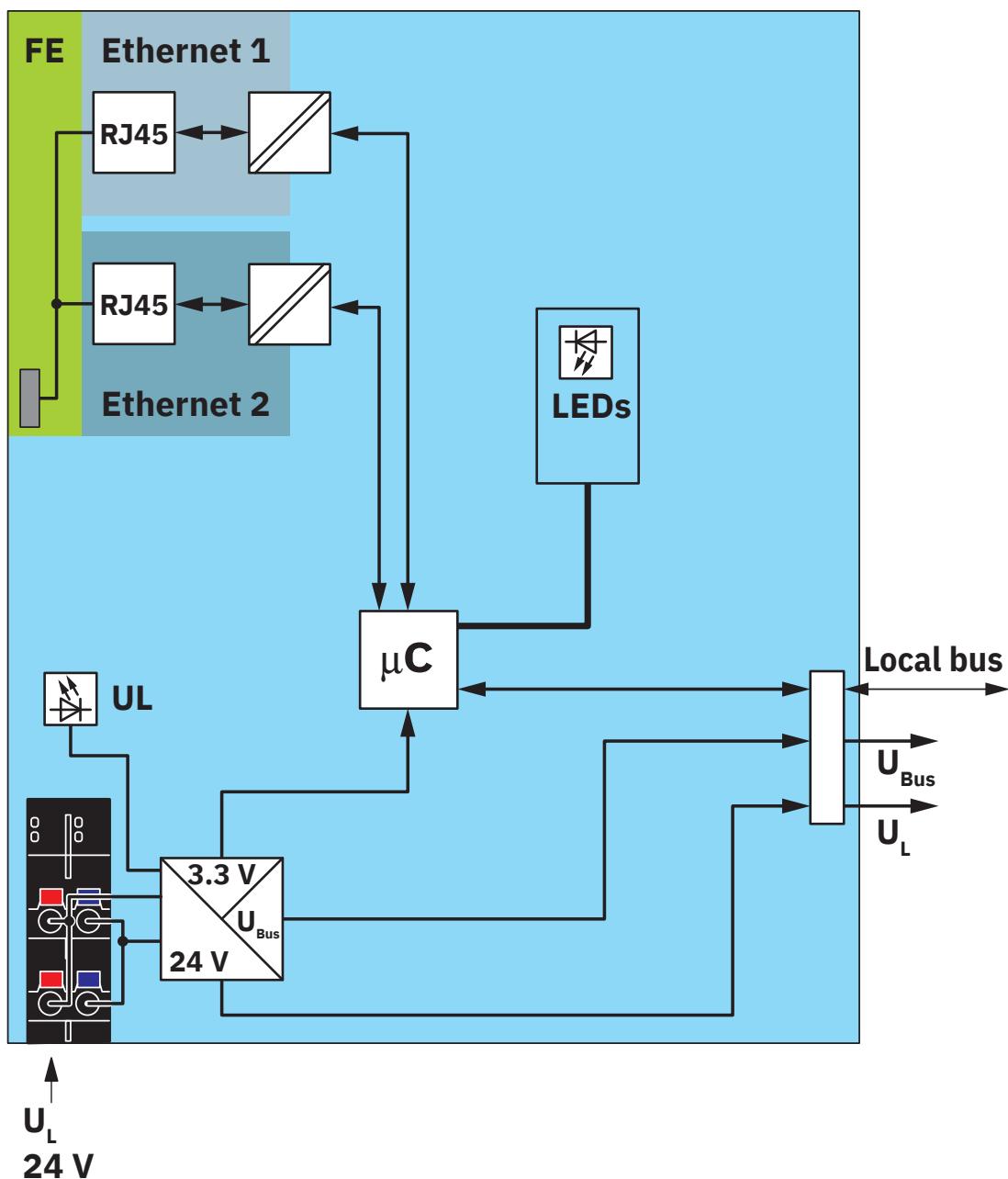
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Block diagram



Internal wiring of the terminal points

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Approvals

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



cULus Listed

Approval ID: E238705



IECEx

Approval ID: IECEx IBE 18.0023X



cUL Listed

Approval ID: E196811



UL Listed

Approval ID: E196811



ATEX

Approval ID: IBExU 18 ATEX B018 X



CCC

Approval ID: 2021122310114877

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Classifications

ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

ETIM

ETIM 9.0	EC001604
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.	

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: n/a)
SCIP	0ed5392b-61dc-4898-8cab-de1bf8266d85

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