AXL F BK PB - Bus coupler

2688530

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CRA-READY



Axioline F, Bus coupler, PROFIBUS DP, D-SUB-9 female connector, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connector; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The bus coupler is intended for use within a PROFIBUS 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. A corresponding GSD file is available for integrating the Axioline F station into the programming system. It can be downloaded at: phoenixcontact.net/product/2688530

Your advantages

- PROFIBUS connection via 9-pos. D-SUB socket
- Electrical isolation between PROFIBUS interface and logic
- Rotary coding switches for setting the PROFIBUS address
- DP/V1 for class 1 and class 2 masters
- PROFIBUS data transmission speed of 9.6 kbps to 12 Mbps
- Dynamic configuration is supported
- I&M functions
- Firmware can be updated
- Typical cycle time of the Axioline F local bus is around 10 µs
- Supports the operation of Axioline Smart Elements
- Supports passive Smart Elements (firmware version 2.20 or later)

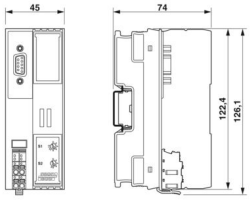


Commercial data

Item number	2688530
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DRI212
Product key	DRI212
GTIN	4046356712903
Weight per piece (including packing)	211.9 g
Weight per piece (excluding packing)	175 g
Customs tariff number	85176200
Country of origin	DE

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).

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

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

Material specifications

Color (Housing)	gray (RAL 7042)

Interfaces

PROFIBUS DP

Number of interfaces	1
Connection method	D-SUB-9 female connector
Transmission speed	9.6 kbps ... 12 Mbps

Axioline F local bus

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

Service

Number of interfaces	1
Connection method	Micro USB type B

System properties

System limits

Amount of process data (Input data)	max. 244 Byte
Amount of process data (Output data)	max. 244 Byte
Number of parameter data	max. 233 Byte
Number of configuration data	max. 244 Byte
Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63

Programming data

Register length (master)	1484 Byte

Product properties

Product type	I/O component
Product family	Axioline F
Type	block modular
Mounting position	any (observe temperature derating)
Scope of supply	including bus base module and Axioline F connector
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)

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	4 W

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. 567 mA (with 2 A at U_{Bus} for the I/Os and U_L = 24 V)
Current consumption	typ. 101 mA (without I/Os and U_L = 24 V)
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 A

Electrical isolation/isolation of the voltage ranges

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

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.

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 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (Mounting position: panel mounting on horizontal DIN rail)
	-25 °C ... 55 °C (Mounting position: any)
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)

Mechanical test

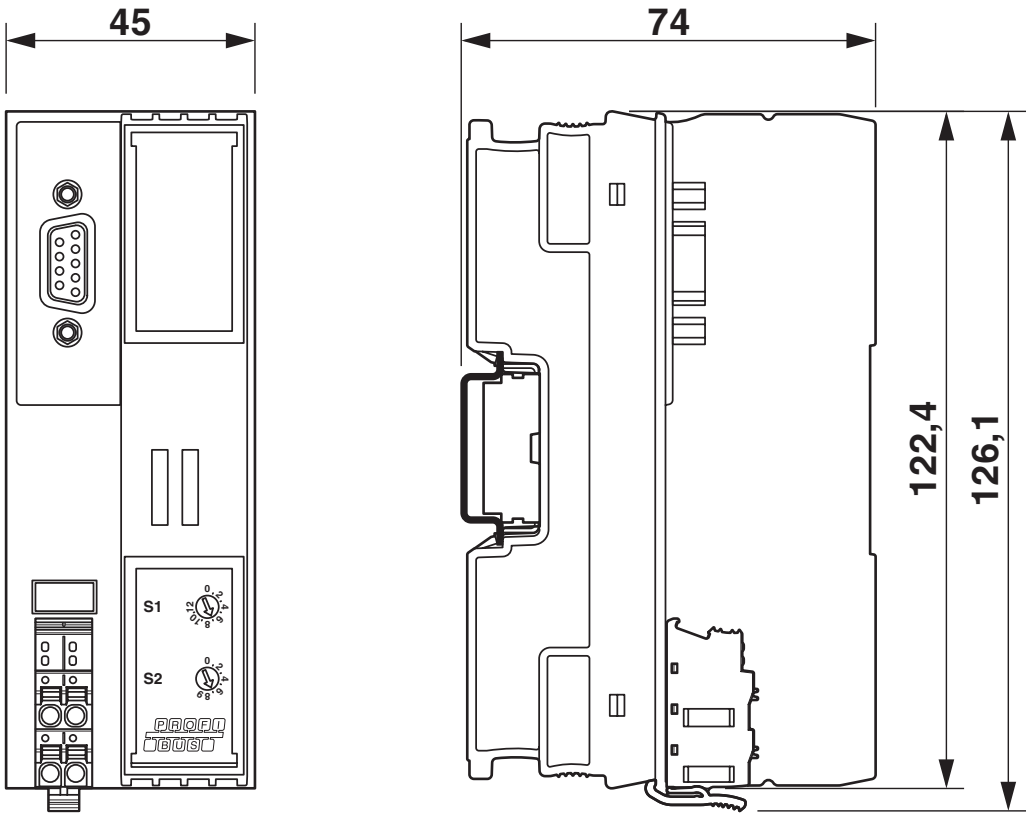
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g
Continuous shock in accordance with EN 60068-2-27/IEC 60068-2-27	10g

Standards and regulations

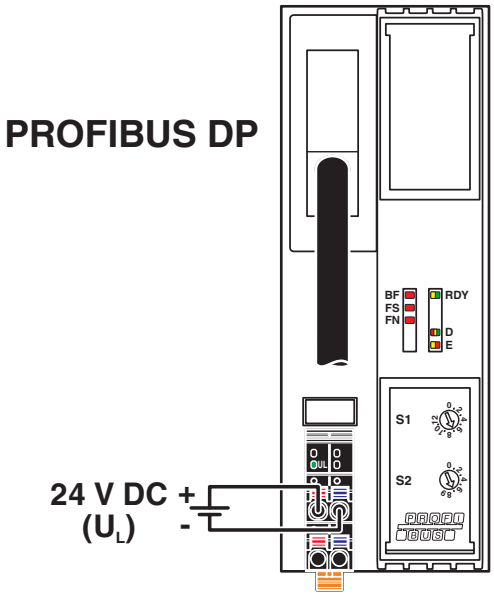
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Drawings

Dimensional drawing

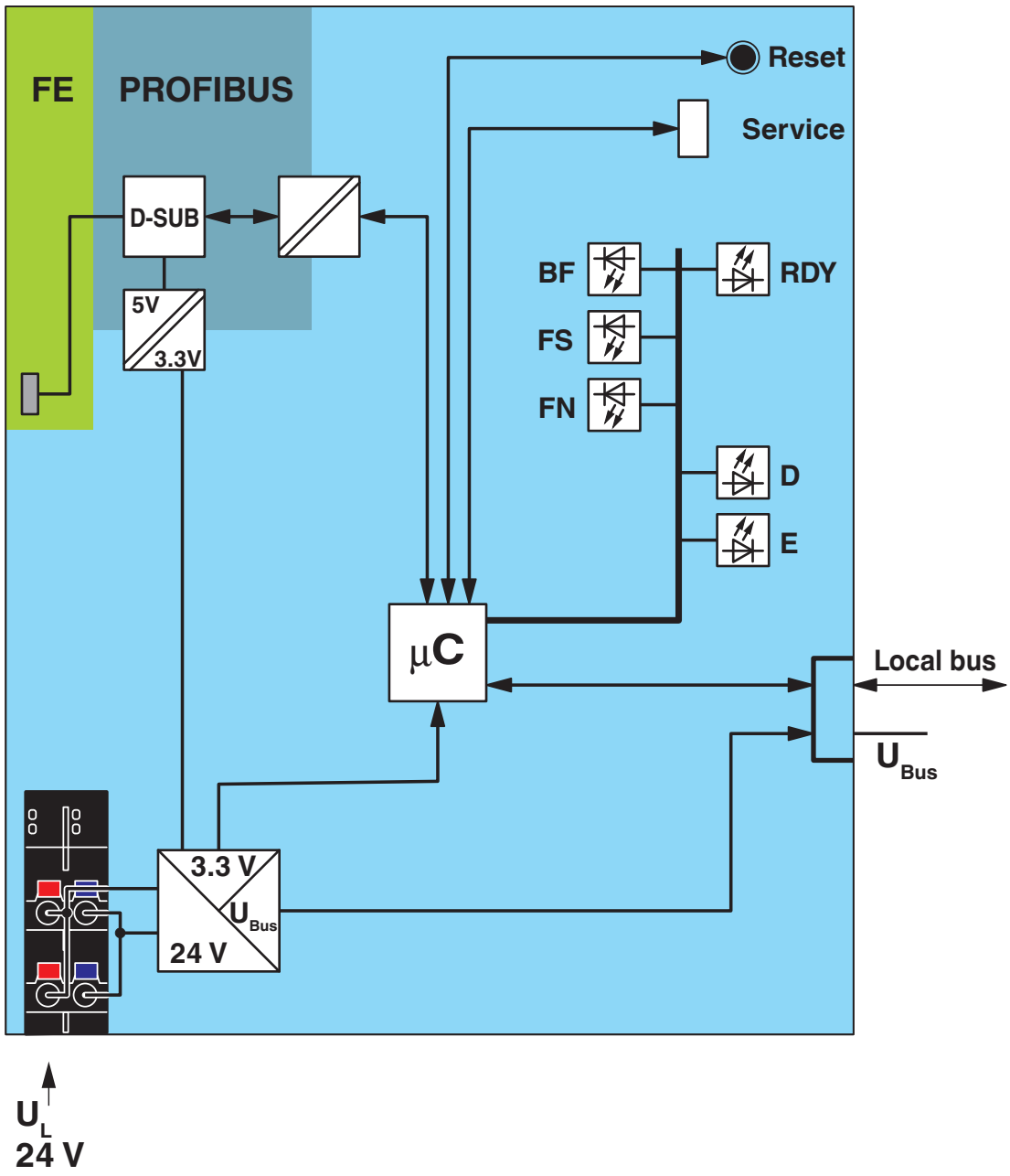


Connection diagram



Connection of the cables

Block diagram



Internal wiring of the terminal points

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2688530

DNV GL
Approval ID: TAA00000DF

LR
Approval ID: LR2480202TA-02

BSH
Approval ID: 840c

RINA
Approval ID: ELE008423XG001

ABS
Approval ID: 23-2449604-PDA

PROFIBUS
Approval ID: Z02073

cULus Listed
Approval ID: E238705

Classifications

ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

ETIM

ETIM 10.0	EC001604

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	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: 7439-92-1)
	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	bb160636-c916-4310-a833-0a42025f00a0

EF3.1 Climate Change

CO2e kg	11.399 kg CO2e

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