

## Bus coupler - AXL BK PN - 2688019

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Axioline bus coupler for PROFINET (including bus base module and connector)

### Product Description

The bus coupler links a PROFINET network with the Axioline system.

Up to 63 Axioline devices can be connected at any point to an existing PROFINET system using the bus coupler.


For startup tests you can put the Axioline station into operation independent of the higher-level network either using the service interface or an Ethernet port at the bus coupler.

### Your advantages

- Up to 63 additional Axioline devices can be connected
- Firmware can be updated
- Diagnostic and status indicators
- Minimum cycle time of PROFINET for RT is 250  $\mu$ s
- Runtime in bus coupler is negligible (almost 0  $\mu$ s)
- PROFINET RT
- Typical cycle time of the Axioline system bus is around 10  $\mu$ s
- 2 RJ45 connections (with integrated switch)
- Module replacement without software



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 501613
GTIN	4046356501613
Weight per Piece (excluding packing)	200.000 g
Custom tariff number	85389091
Country of origin	Germany

## Bus coupler - AXL BK PN - 2688019

### Technical data

#### Dimensions

Width	40 mm
Height	123.6 mm
Depth	75 mm
Note on dimensions	The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715).

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	5 % ... 95 % (according to DIN EN 61131-2)
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)
Degree of protection	IP20

#### Connection data

Designation	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 solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16

#### General

Mounting type	DIN rail mounting
Color	gray
Net weight	195.9 g
Note on weight specifications	with connector

#### Interfaces

Designation	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

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### Technical data

#### Interfaces

Designation	Axioline F local bus
Connection method	Connection for bus base module
Transmission speed	100 Mbps
Designation	Service
Connection method	IFS-USB-PROG-ADAPTER

#### System limits of the bus coupler

Amount of process data	1485 Byte (for each data direction)
Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63

#### Power supply for module electronics

Current consumption	max. 600 mA (from $U_{BK}$ )
	typ. 86 mA (from $U_{BK}$ )
Power dissipation	typ. 2 W ((without I/Os))

#### Axioline potentials

Designation	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 consumption	max. 600 mA (with 2 A at $U_{BUS}$ for the I/Os and $U_L = 24$ V)
Power consumption	max. 14.4 W (with 2 A load at $U_{BUS}$ for the I/Os)
Designation	Axioline F local bus supply ( $U_{BUS}$ )
Supply voltage	5 V DC (via bus base module)
Power supply unit	2 A
Protective circuit	Surge protection of the supply voltage Electronic
	Polarity reversal protection of the supply voltage parallel diode; with external 5 A fuse (only for commissioning)

#### Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

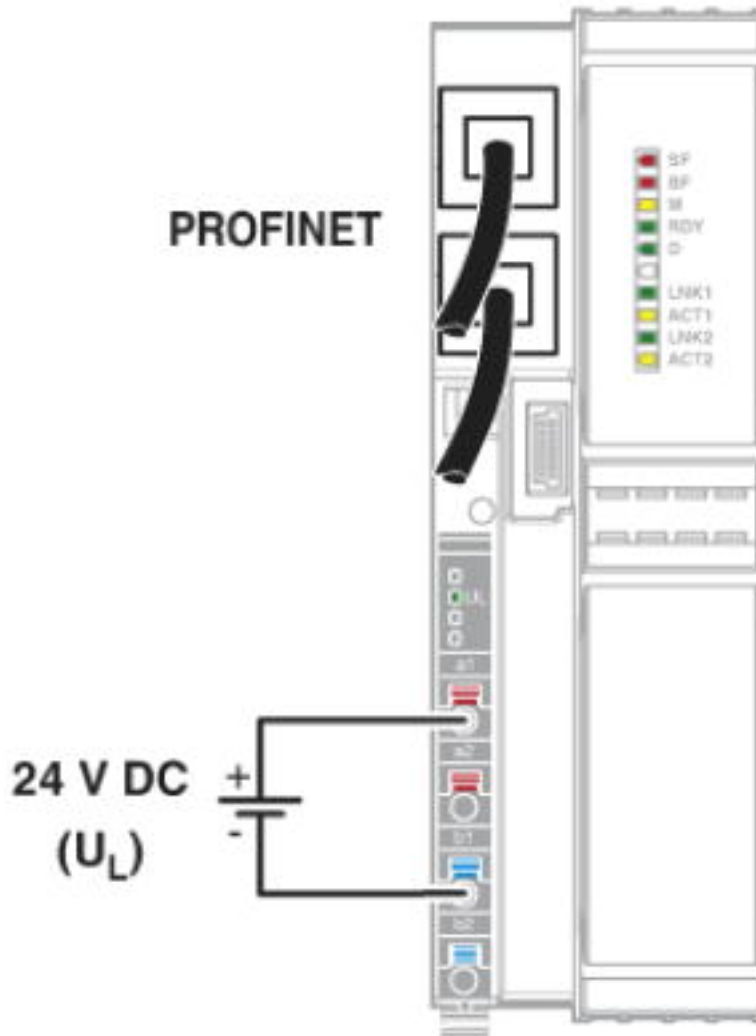
#### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

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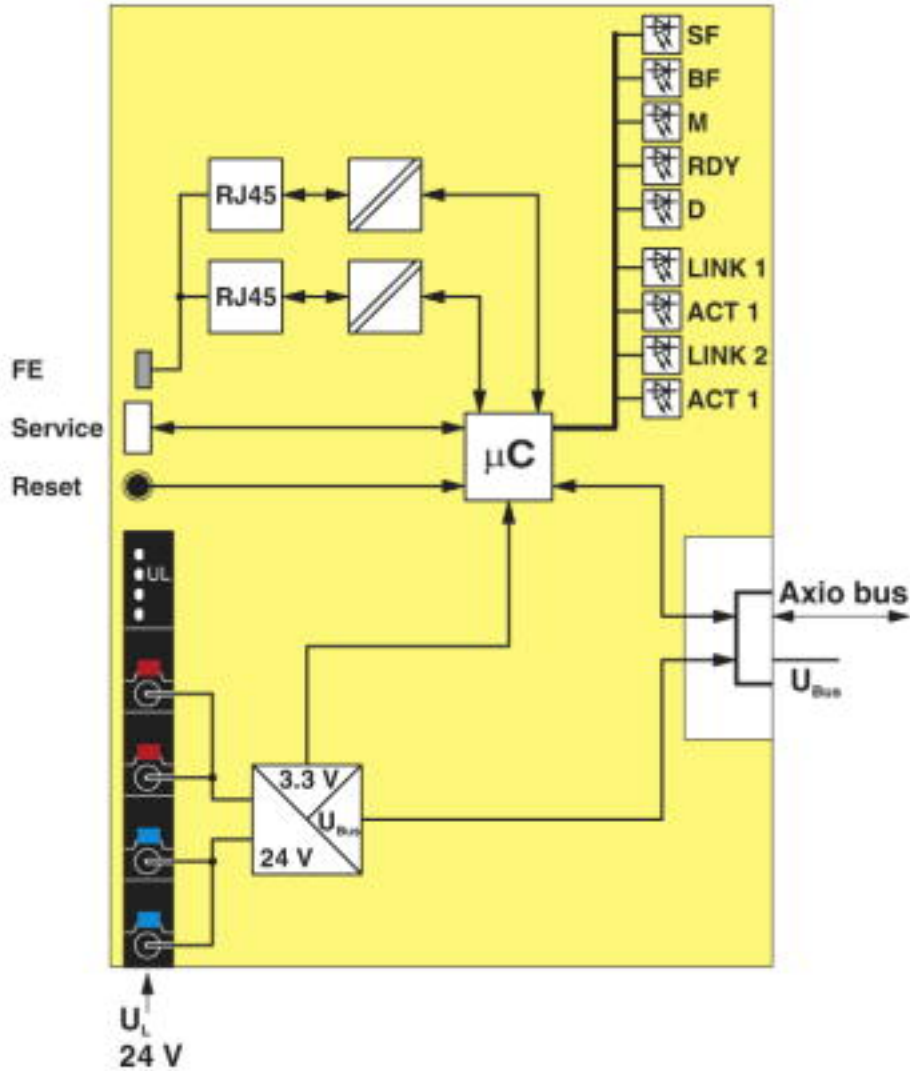
## Drawings

Connection diagram



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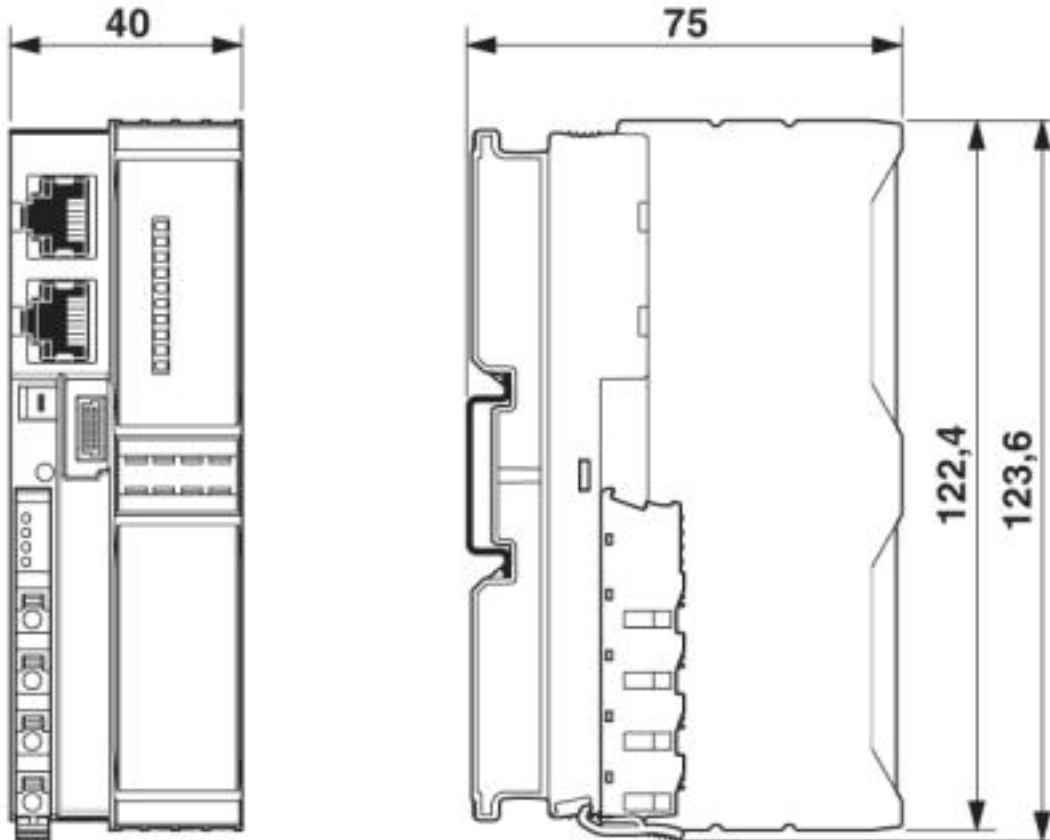
Block diagram



Internal wiring of the terminal points

## Bus coupler - AXL BK PN - 2688019

Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 4.0	27240490
eCl@ss 4.1	27240490
eCl@ss 5.0	27242208
eCl@ss 5.1	27242608
eCl@ss 6.0	27242608
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608
eCl@ss 9.0	27242608

#### ETIM

ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604

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### Classifications

#### ETIM

ETIM 6.0	EC001604
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#### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602

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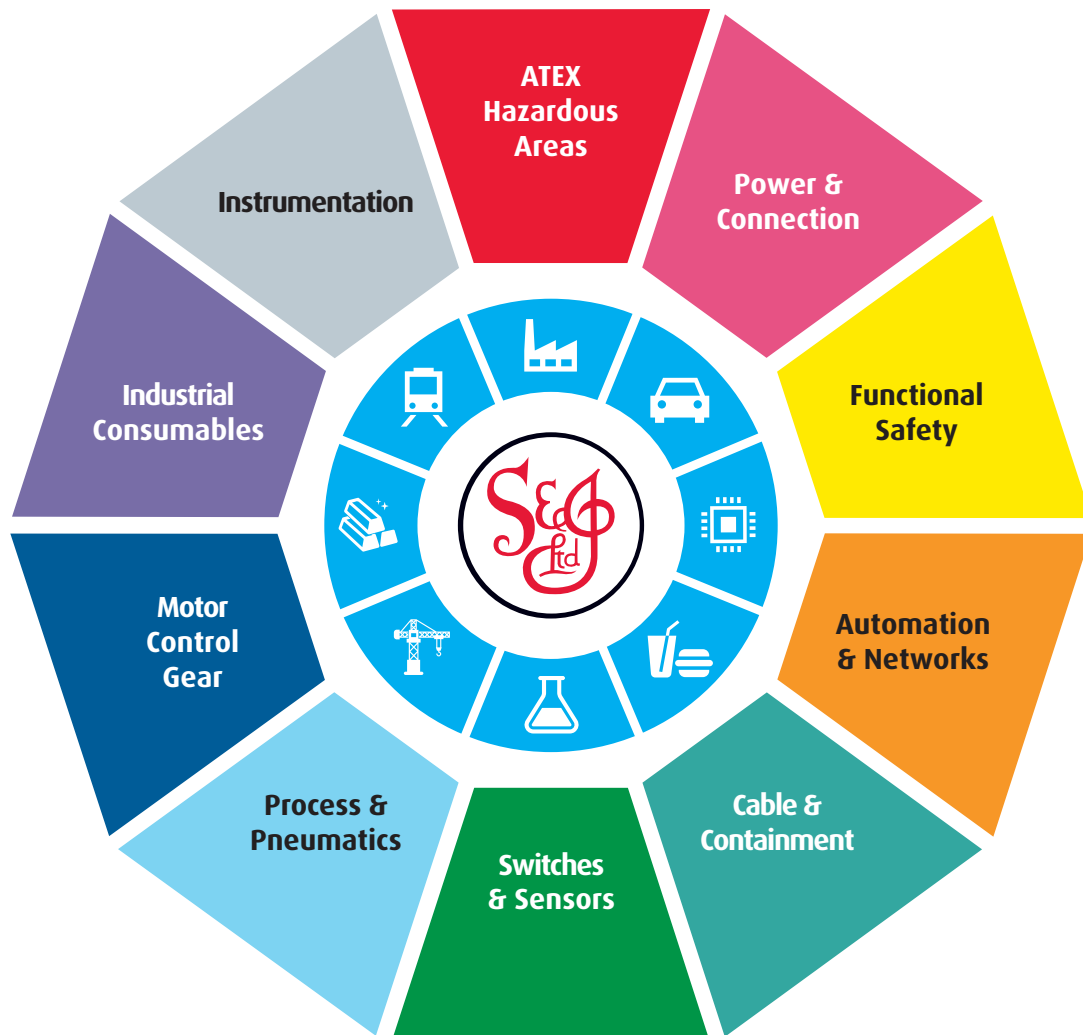
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