Bus coupler - AXL F BK ETH XC - 2701949

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The figure shows the standard item

Axioline F XC, Bus coupler, Modbus/TCP(UDP), RJ45 socket, Extreme conditions version, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connector

Product Description

The bus coupler is intended for use within a Modbus/TCP (UDP) 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.
Thanks to special engineering measures and tests, the module can be used under extreme ambient conditions.

Your advantages

- 2 Ethernet ports (with integrated switch)
- Transmission speed of 10 Mbps and 100 Mbps
- Rotary coding switches for setting the IP address assignment and other functions
- Modbus/TCP (UDP) support
- BootP and DHCP
- Can be used under extreme ambient conditions
- Extended temperature range of -40°C ... +70°C (see “Tested successfully: use under extreme ambient conditions” in the data sheet)
- Partially coated PCBs
- Firmware can be updated
- Runtime in the bus coupler is negligible (almost 0 µs) (for Modbus/UDP)
- Typical cycle time of the Axioline F local bus is around 10 µs

RoHS

Modbus/TCP (UDP)

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 901239
GTIN	4046356901239

Technical data

Note

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

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Technical data

Dimensions

Width	45 mm
Height	126.1 mm
Depth	74 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 (Standard; mounting position: wall mounting on horizontal DIN rail))
	-25 °C ... 55 °C (Standard; mounting position: any)
	-40 °C ... 70 °C (Extended, see section “Tested successfully: use under extreme ambient conditions” in the data sheet.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
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 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	1.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

General

Mounting type	DIN rail
Net weight	177 g
Note on weight specifications	with connector and bus base module

Interfaces

Designation	Modbus/TCP (UDP)
No. of channels	2
Connection method	RJ45 socket
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps (Half or full duplex mode (automatic detection, can be adjusted manually))
Transmission physics	Ethernet in RJ45 twisted pair

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Technical data

Interfaces

Designation	Axioline F local bus
Connection method	Bus base module
Transmission speed	100 Mbps
Designation	Service
Connection method	Micro USB type B

System limits of the bus coupler

Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63

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. 583 mA (with 2 A at U_{Bus} for the I/Os and U_L = 24 V)
Power consumption	max. 14 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
Type of protection	Surge protection of the supply voltage
	Polarity reversal protection of the supply voltage

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

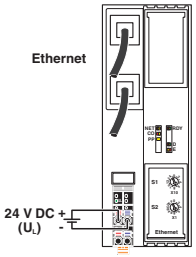
Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

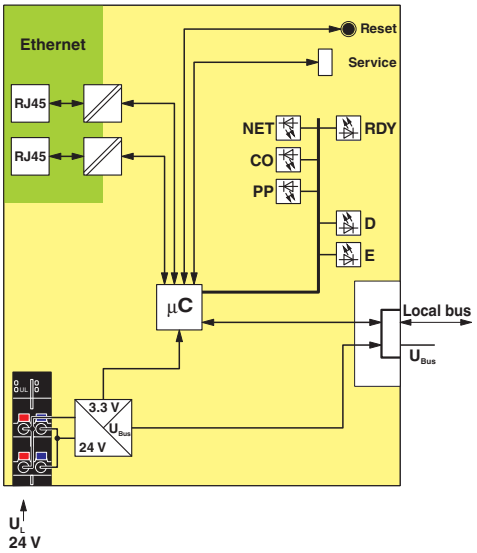
Drawings

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Connection diagram

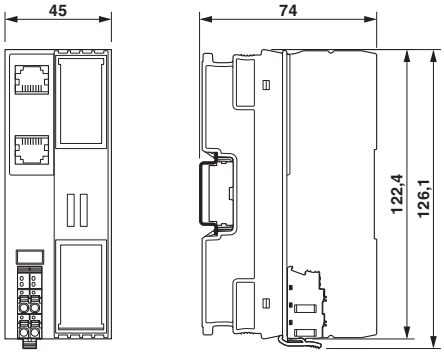


Block diagram



Internal wiring of the terminal points

Dimensional drawing



Approvals

Approvals

Approvals

UL Listed / cUL Listed / LR / NK / BV / DNV GL / PRS / ABS / RINA / BSH / KR / BSH / cULus Listed

Ex Approvals

Approval details

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Approvals

UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
LR	http://www.lr.org/en	14-20019
NK	http://www.classnk.or.jp/hp/en/	14A006
BV	http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36433/A2 BV
DNV GL	http://exchange.dnv.com/tari/	TAA00000DF
PRS	http://www.prs.pl/	TE/2106/880590/16
ABS	http://www.eagle.org/eagleExternalPortalWEB/	18-HG1767360-PDA
RINA	http://www.rina.org/en	ELE256518XG
BSH	http://www.bsh.de/de/index.jsp	840
KR	http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
BSH	http://www.bsh.de/de/index.jsp	840
cULus Listed		

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