

Bus coupler - AXL F BK ETH - 2688459

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Axioline F, Bus coupler, Modbus/TCP(UDP), RJ45 socket, 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.

Why buy this product

- Up to 63 additional Axioline devices can be connected
- 2 Ethernet ports (with integrated switch)
- Transmission speed of 10 Mbps and 100 Mbps
- Rotary encoding switch
- Modbus/TCP (UDP) support
- BootP and DHCP
- Diagnostic and status indicators
- Firmware can be updated
- Typical cycle time of the Axioline F local bus is around 10 μ s



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 710770
GTIN	4046356710770
Weight per Piece (excluding packing)	220.000 g
Custom tariff number	85176200
Country of origin	Germany

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Technical data

Dimensions

Width	45 mm
Height	125.9 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 (Mounting position: wall mounting on horizontal DIN rail)
	-25 °C ... 55 °C (Mounting position: any)
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 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 ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
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)
Connection method	RJ45 socket
Note on connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps (Half or full duplex mode (automatic detection, can be adjusted manually))

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Technical data

Interfaces

Transmission physics	Ethernet in RJ45 twisted pair
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

Supply of communications power U_L	24 V DC
Current consumption from U_L	typ. 105 mA (without I/Os and $U_L = 24$ V)
	max. 583 mA (with 2 A at U_{Bus} for the I/Os and $U_L = 24$ V)
Communications power U_{Bus}	5 V DC (via bus base module)
Current supply at U_{Bus}	2 A

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

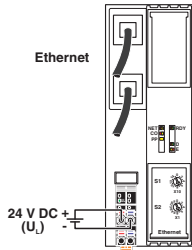
Environmental Product Compliance

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

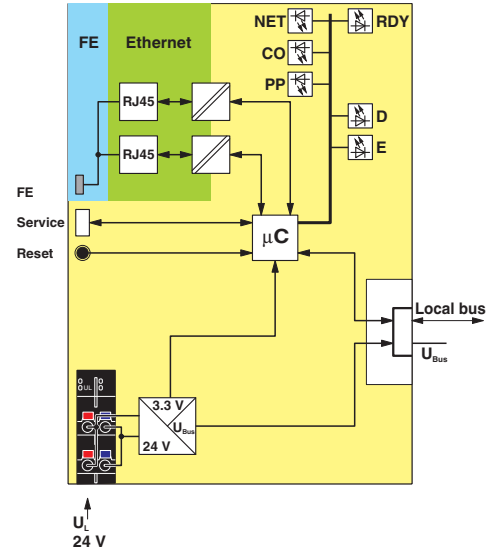
Drawings

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Connection diagram

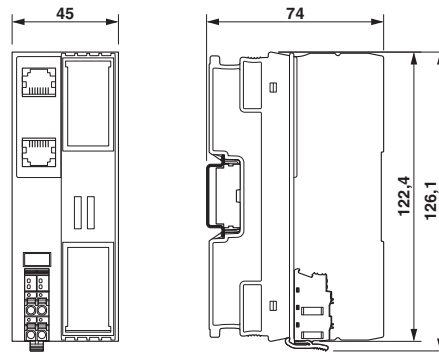


Block diagram



Internal wiring of the terminal points

Dimensional drawing



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

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Classifications

eCl@ss

eCl@ss 9.0	27242608
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ETIM

ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604
ETIM 6.0	EC001604

UNSPSC

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

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details









UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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BSH	http://www.bsh.de/de/index.jsp	840
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Approvals

BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36433/A2 BV
LR		http://www.lr.org/en	14-20019
ABS		http://www.eagle.org/eagleExternalPortalWEB/	16-HG1549537-PDA
NK		http://www.classnk.or.jp/hp/en/	TA16207M
EAC			EAC-Zulassung
KC		http://eng.kcc.go.kr/user/ehpMain.do	MSIP-REI-PCK-2688459
DNV GL		http://exchange.dnv.com/tari/	TAA00000DF
PRS		http://www.prs.pl/	TE/2106/880590/16
RINA		http://www.rina.org/en	ELE078216XG-001
cULus Listed			

Accessories

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Accessories

Data cable by the meter

Cable - FL CAT5 HEAVY - 2744814



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm², solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

Network cable - FL CAT5 FLEX - 2744830



CAT5-SF/UTP cable (J-LI02YS(ST)C H 2 x 2 x 26 AWG), light-duty, flexible installation cable 2 x 2 x 0.14 mm², stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter

Device marking

Insert label - EMT (35X18,7)R - 0801831



Insert label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, Mounting type: snapped into marker carrier, Lettering field: 35 x 18.7 mm

DIN rail connector

Bus connector - AXL BS BK - 2701422



Axioline F bus base module for housing type BK

Plug

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Accessories

Plug - AXL CN S/UL - 2701421



Axioline F short power connector (for e.g., AXL F BK ...)

RJ45 connector - FL PLUG RJ45 GR/2 - 2744856



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.

RJ45 connector - FL PLUG RJ45 GN/2 - 2744571



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

Programming cable

Connecting cable - CAB-USB A/MICRO USB B/2,0M - 2701626



Connecting cable, for connecting the controller to a PC for PC Worx and LOGIC+, USB A to micro USB B, 2 m in length.

Terminal marking

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579



Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

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Accessories

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580



Zack marker strip, flat, in 10 mm pitch, unprinted, 10-section, for individual labeling with M-PEN 0,8, X-PEN, or CMS-P1-PLOTTER

Universal tools

Assembly tool - FL CRIMPTOOL - 2744869



Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site