

I/O module - AXL F AO8 XC 1F - 2701237

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Axioline F XC, Analog output module, Analog outputs: 8, 0 V ... 5 V, -5 V ... 5 V, 0 V ... 10 V, -10 V ... 10 V, 0 mA ... 20 mA, 4 mA ... 20 mA, -20 mA ... 20 mA, connection method: 2-wire, transmission speed in the local bus: 100 Mbps, Extreme conditions version, including bus base module and Axioline F connectors

The figure shows the standard item

Product Description


The module is designed for use within an Axioline F station. It is used to output analog voltage and current signals.

Why buy this product

- 8 analog, bipolar output channels for the connection of either voltage or current signals
- Connection of actuators in 2-wire technology
- Voltage ranges: 0 V ... 10 V, ±10 V, 0 V ... 5 V, ±5 V
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA, ±20 mA
- Short-circuit-proof outputs
- Device rating plate stored
- 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



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 729857
GTIN	4046356729857

Technical data

Note

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

Width	53.6 mm
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Dimensions

Height	126.1 mm
Depth	54 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)
	-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

General

Mounting type	DIN rail
Net weight	260 g
Note on weight specifications	with connectors and bus base module

Interfaces

Designation	Axioline F local bus
No. of channels	2
Connection method	Bus base module
Transmission speed	100 Mbps

Axioline potentials

Designation	Axioline F local bus supply (U_{BUS})
Supply voltage	5 V DC (via bus base module)
Current consumption	typ. 105 mA
	max. 130 mA
Power consumption	typ. 0.525 W
	max. 0.65 W
Designation	Supply for analog modules (U_A)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	typ. 110 mA (8 voltage channels, 10 V output)
	max. 235 mA (8 current channels, 20 mA output)
Power consumption	max. 5.64 W (8 current channels, 20 mA output)
	typ. 1.725 W (to U_{BUS} and U_A ; power input; no load, output 0 V)
	max. 6.29 W (to U_{BUS} and U_A ; 8 current channels, output 20 mA)
Type of protection	Surge protection of the supply voltage

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Axioline potentials

	Polarity reversal protection of the supply voltage
	Transient protection

Analog outputs

Number of outputs	8
Connection method	Push-in connection
Connection technology	2-wire
Note regarding the connection technology	shielded, twisted pair
Output name	Analog outputs
D/A conversion time	5 µs
D/A resolution	16 bit
Type of protection	Short-circuit and overload protection
	Transient protection
Protective circuit/component	Electronic
	Suppressor diode
Data formats	IB IL, S7-compatible
Representation of output values	16 bits (15 bits + sign)
Process data update	300 µs
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Load/output load current output	to 500 Ω
Voltage output signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Load/output load voltage output	> 2 kΩ
Precision	typ. 0.1 % (of output range final value)
Permissible cable length	max. 250 m

Electrical isolation

Test section	5 V communications power (logic), 24 V supply (I/O) 500 V AC 50 Hz 1 min.
	5 V supply (logic)/analog outputs 500 V AC 50 Hz 1 min.
	5 V supply (logic)/functional earth ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O)/analog outputs 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.
	Analog outputs/functional earth ground 500 V AC 50 Hz 1 min.

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

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Standards and Regulations

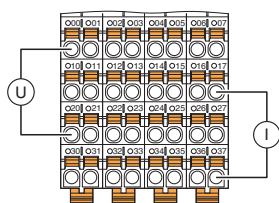
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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Environmental Product Compliance

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

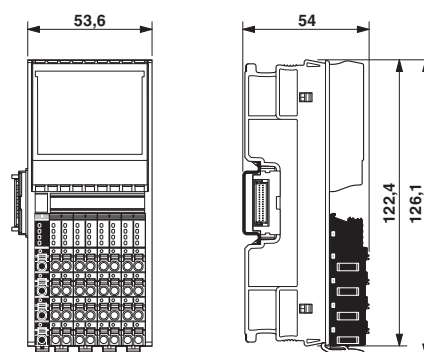
Drawings

Connection diagram

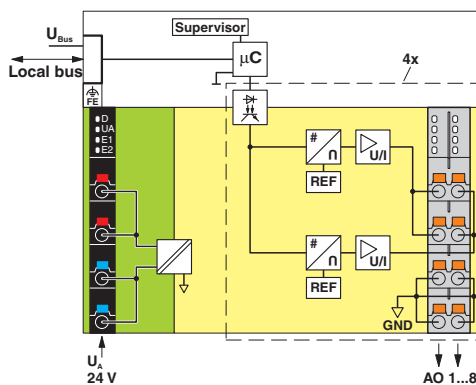


Connection for voltage and current output

Dimensional drawing



Block diagram



Internal wiring of the terminal points

Approvals

Approvals

Approvals

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

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Approvals

Ex Approvals

Approval details

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
BSH		http://www.bsh.de/de/index.jsp	840
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
cULus Listed			

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PHOENIX CONTACT GmbH & Co. KG
Flachmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>