

## I/O module - AXL F DO4/3 AC 1F - 2702068

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Axioline F, Digital output module, Digital outputs: 4 (Triac outputs with zero voltage switch), 230 V AC, 2 A AC, connection method: 3-wire, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

### Your advantages

- 4 digital outputs
- Connection of actuators in 2 and 3-wire technology
- Device rating plate stored
- Diagnostic and status indicators



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 933087
GTIN	4046356933087
Weight per Piece (excluding packing)	239.000 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Dimensions

Width	53.6 mm
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 (max. 2 A/channel for wall mounting on horizontal DIN rail; max. 1 A/channel for any mounting position)
	-25 °C ... 50 °C (max. 2 A/channel for any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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## Technical data

### Ambient conditions

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. When selecting the cables, please note that in the case of a small conductor cross section and high current, the terminal point temperature may be up to 30 K above the ambient temperature.
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	16
Stripping length	8 mm

### General

Mounting type	DIN rail
Color	traffic grey A RAL 7042
Net weight	239 g
Note on weight specifications	with connectors and bus base module
Mounting position	any (observe temperature and current derating)

### 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	max. 120 mA
Power consumption	max. 600 mW
Designation	Supply for digital output modules ( $U_O$ )
Supply voltage	230 V AC
Supply voltage range	12 V AC ... 253 V AC (including all tolerances, including ripple, 50 ... 60 Hz)

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## Technical data

### Axioline potentials

Current consumption	max. 8 A (provide external protection)
Power consumption	max. 2024 VA (of which 8 VA internal losses)
Protective circuit	Surge protection of the supply voltage Varistor 275 V
Protection	max. 8 A

### Digital outputs

Output name	Digital outputs
Connection method	Push-in connection
Connection technology	3-wire
Number of outputs	4 (Triac outputs with zero voltage switch)
Protective circuit	External protection required I <sup>2</sup> t-value (a half-wave): 340 A <sup>2</sup> s
Output voltage	230 V AC
Nominal output voltage	230 V AC
Maximum output current per channel	2 A AC
Maximum output current per module	8 A AC (provide external protection)
Nominal load, ohmic	max. 460 W (at nominal voltage)
Switching frequency	max. 100 per second (with ohmic load)
Load min.	5.1 kΩ (at 230 V)
Output voltage when switched off	see diagram
Behavior with overload	Output may be damaged
Reverse voltage resistance to short pulses	Reverse voltage proof

### Electrical isolation

Test section	I/Os / logic 4 kV Rated surge voltage (safe isolation according to EN 61010-2-201/IEC 61010-2-201)
	I/Os / logic 5 kV Pulse test voltage according to EN 61850/IEC 61850
	I/O / functional earth ground 4 kV Rated surge voltage (safe isolation according to EN 61010-2-201/IEC 61010-2-201)
	I/O / functional earth ground 5 kV Pulse test voltage according to EN 61850/IEC 61850
	I/O area AC / PE 4 kV Rated surge voltage (basic insulation according to EN 61010-2-201/IEC 61010-2-201)

### 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
Developed according to standard	IEC 61850-3 Immunity to magnetic fields, EN 61000-4-8/IEC 61000-4-8 300 A/m continuous, 1000 A/m for 1 s
	IEC 61850-3 Immunity to attenuated oscillating magnetic fields, EN 61000-4-10/IEC 61000-4-10 100 A/m
	IEC 61850-3 Immunity to conducted common-mode interference, EN 61000-4-16/IEC 61000-4-16 30 V continuous, 300 V for 1 s
	IEC 61850-3 Attenuated oscillating waves, EN 61000-4-18/IEC 61000-4-18 1 kV symmetrical, 2.5 kV asymmetrical

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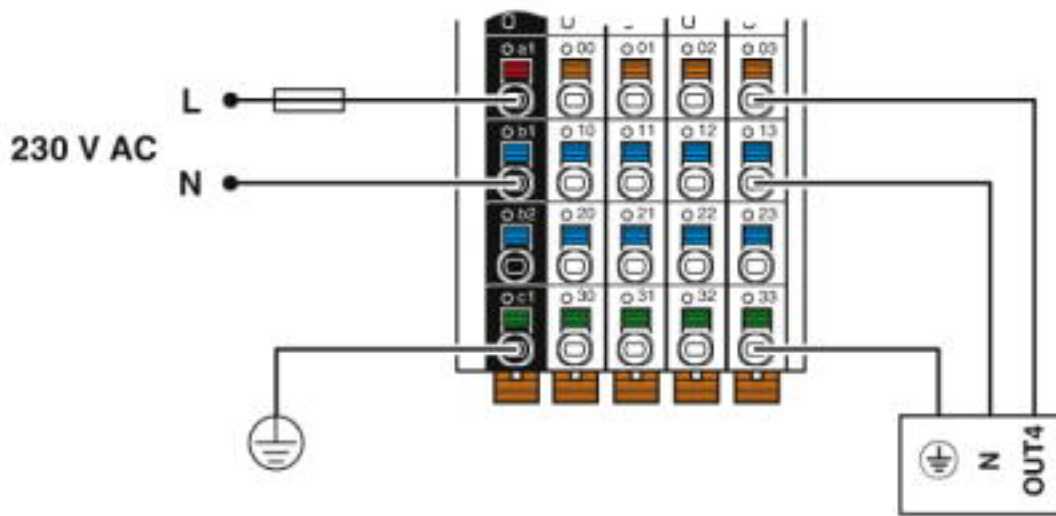
## Technical data

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

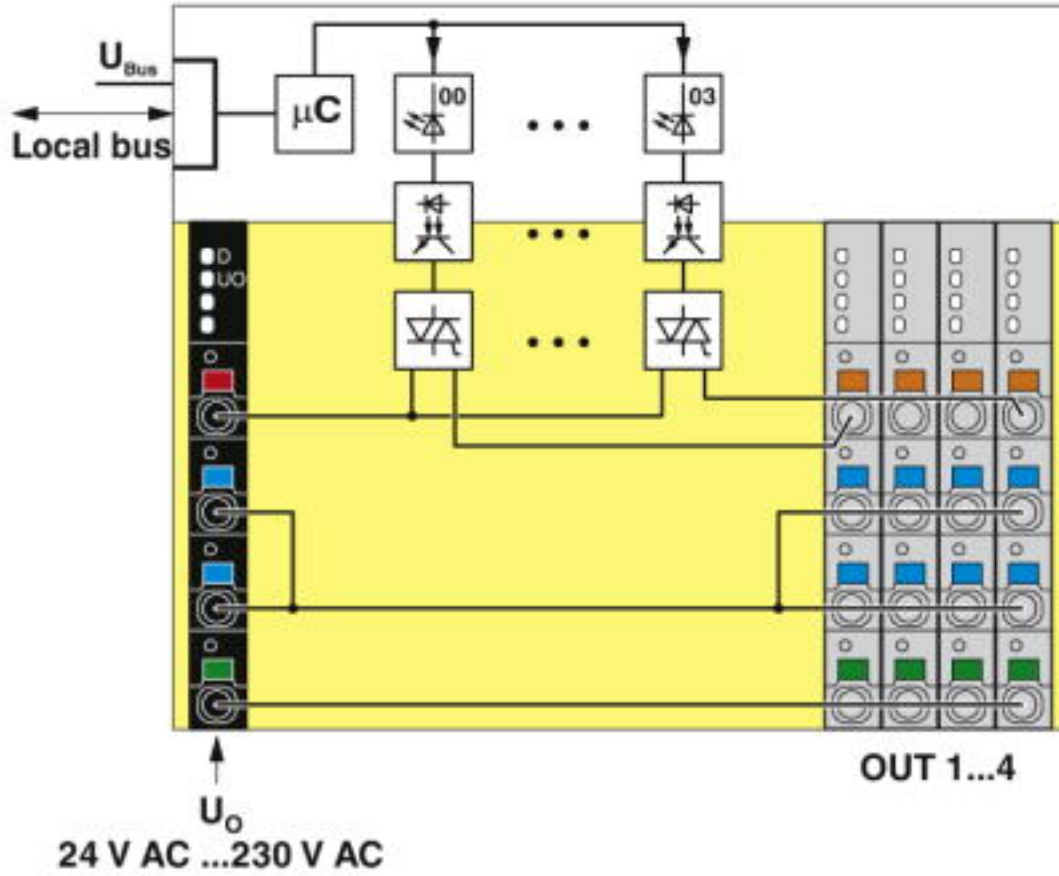
Connection diagram



Connection with 3-wire technology

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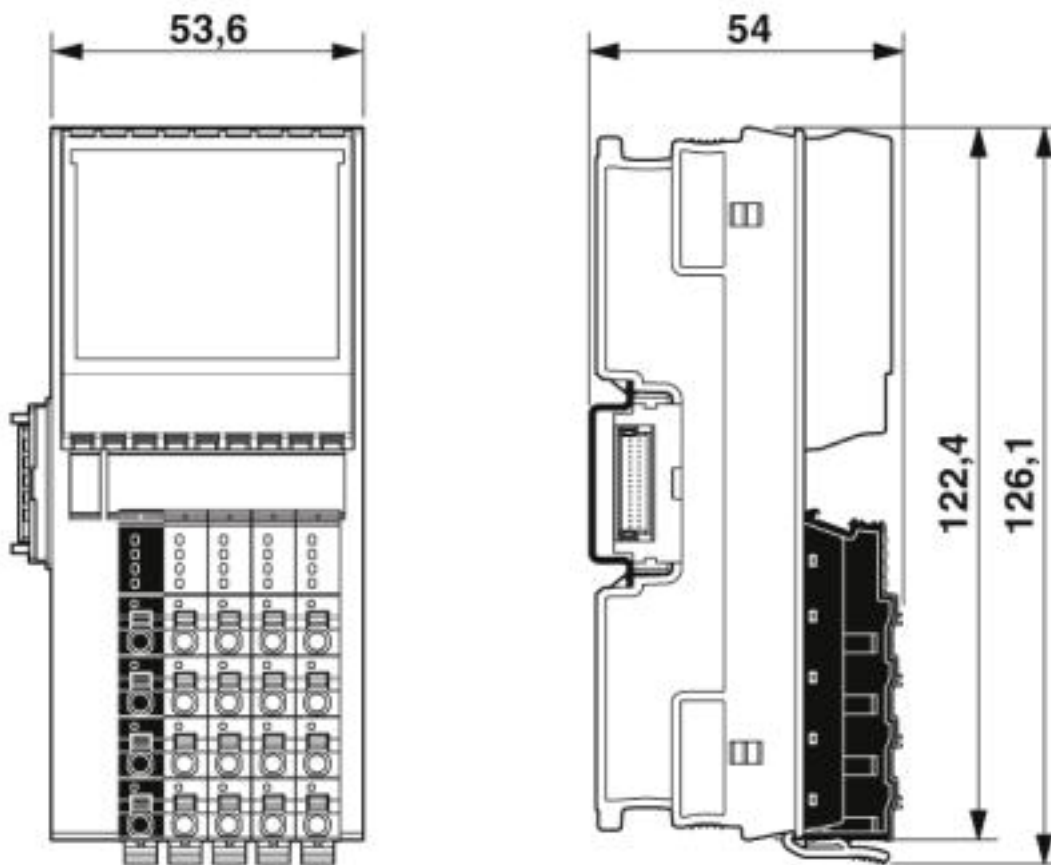
Block diagram



Internal wiring of the terminal points

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Dimensional drawing



## Classifications

### eCl@ss

eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

### ETIM

ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

### UNSPSC

UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602

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## Classifications

### UNSPSC

UNSPSC 21.0	32151602
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## Approvals

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UL Listed / cUL Listed / cULus Listed

### Ex Approvals

## Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cULus Listed			
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## Accessories

### Accessories

### Device marking

Insert label - EMT (35X46)R - 0801604



Insert label, for the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped into marker carrier, lettering field size: 35 x 46 mm, Number of individual labels: 500

## DIN rail connector

## I/O module - AXL F DO4/3 AC 1F - 2702068

### Accessories

Bus connector - AXL F BS F - 2688129



Axioline F bus base module for housing type F

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### 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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Zack Marker strip, flat - ZBF 7,5:UNBEDRUCKT - 0809942



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 7.5 mm, lettering field size: 5.15 x 7.4 mm, Number of individual labels: 10

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