

AXL F DOR4/2 AC/220DC 1F - Relay Module



2700608

<https://www.phoenixcontact.com/us/products/2700608>

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Axioline F, Relay module, Relay outputs: 4 (floating), N/O contact, 220 V DC, 230 V AC, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

Product description

The module is designed for use within an Axioline F station. It has four floating relay N/O contacts which are independent of one another. Low-voltage and extra-low-voltage modules can be used side by side within an Axioline F station.

Your advantages

- Meets the requirements of IEC 61850-3 and IEEE 1613
- 4 monostable relays
- Floating connections for 4 actuators
- Nominal current of each output: 8 A
- Total current of the module: 32 A (4 x 8 A)
- Device rating plate stored

Commercial data

Item number	2700608
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR02
Product key	DRI232
Catalog page	Page 79 (C-6-2019)
GTIN	4046356916486
Weight per piece (including packing)	255.7 g
Weight per piece (excluding packing)	222 g
Customs tariff number	85389091
Country of origin	DE

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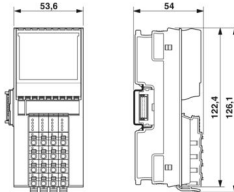


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Technical data

Dimensions

Dimensional drawing	
Width	53.6 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Interfaces

Axioline F local bus

Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

System properties

Module

Input address area	0 Byte
Output address area	1 Byte
Required parameter data	1 Byte
Required configuration data	6 Byte

Output data

Relay

Number of outputs	4 (floating)
Connection method	Push-in connection
Connection technology	2-conductor
Contact switching type	N/O contact
Switching current	max. 8 A AC (cos phi = 1) For DC see load limit curve, e.g., the following values: max. 8 A DC (≤ 30 V, ohmic load) max. 500 mA DC (110 V, ohmic load) max. 250 mA DC (220 V DC, ohmic load) max. 220 mA DC (125 V DC, L/R ≤ 50 ms, applications with UL approval)

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	max. 110 mA DC (250 V DC, L/R ≤ 50 ms, applications with UL approval)
Switching capacity	max. 2000 VA
	For DC see load limit curve, e.g., the following values:
	max. 240 W (30 V DC)
	max. 55 W (≥ 60 V DC)
	max. 25 W (125 V DC, 250 V DC, applications with UL approval)
Switching capacity in accordance with IEC 60947-5-1	6 A (120 V (AC15))
	3 A (240 V (AC15))
	0.22 A (125 V (DC13))
	0.1 A (250 V (DC-13))
Switching frequency	max. 6 (per minute)
Mechanical service life	10x 10 ⁶ cycles

Product properties

Product type	I/O component
Product family	Axioline F
Type	block modular
Mounting position	any (observe temperature and current derating)
Scope of delivery	including bus base module and Axioline F connectors

Insulation characteristics

Overvoltage category	III (EN 61010-2-201/UL 61010-2-201), up to 2000 m above sea level II (EN 61010-2-201/UL 61010-2-201), up to 3000 m above sea level
Pollution degree	2

Electrical properties

Potentials: Axioline F local bus supply (U_{Bus})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 280 mA (all relays pick up)
Power consumption	max. 1.4 W (all relays pick up)

Electrical isolation/isolation of the voltage ranges

Test voltage: Relay contact / logic	4 kV
	5 kV
Test voltage: Relay contact / functional ground	4 kV
	5 kV
Test voltage: Relay contact/relay contact (open contact)	1 kV, 50 Hz, 1 min.
Test voltage: Relay contact/relay contact (adjacent male connectors)	2.5 kV

Connection data

Connection technology

Connection name	Axioline F connector
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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.
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Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

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, rigid	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (max. 6 A/channel for wall mounting on horizontal DIN rail; max. 4 A/channel for any mounting position) -25 °C ... 50 °C (max. 8 A/channel for wall mounting on horizontal DIN rail; max. 6 A/channel for any mounting position) -25 °C ... 40 °C (max. 8 A/channel for any mounting position)
Degree of protection	IP20
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)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

Standard designation	Ambient conditions
Standards/specifications	IEC 61850-3

Mounting

Mounting type	DIN rail mounting
Mounting position	any (observe temperature and current derating)

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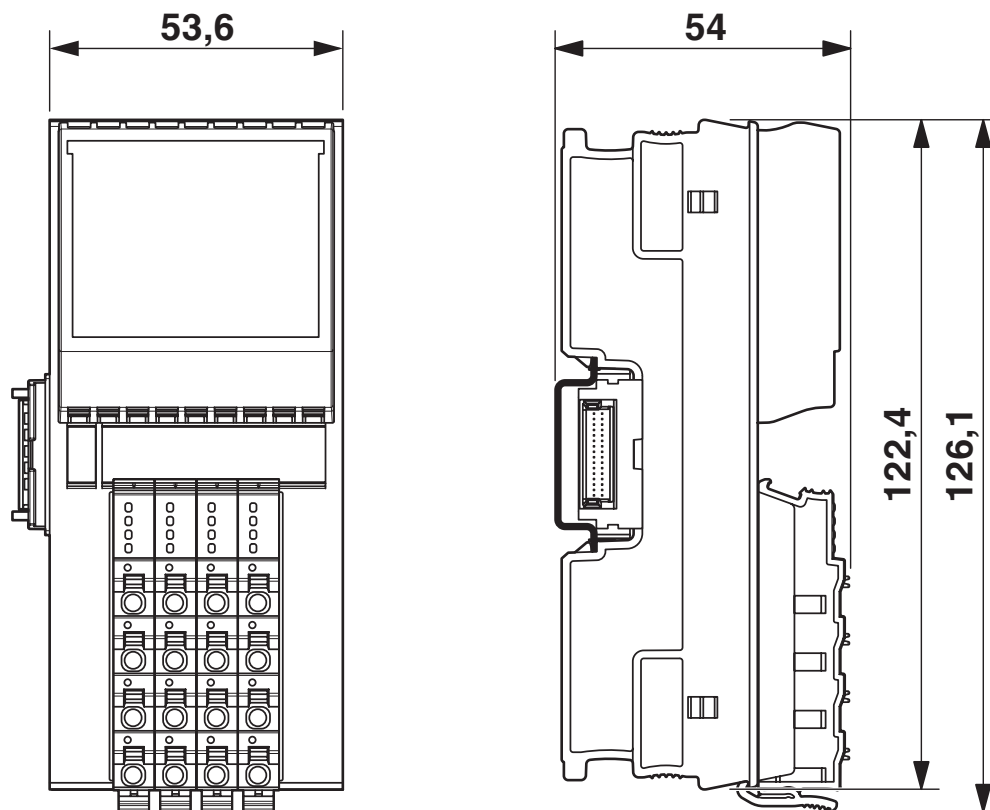
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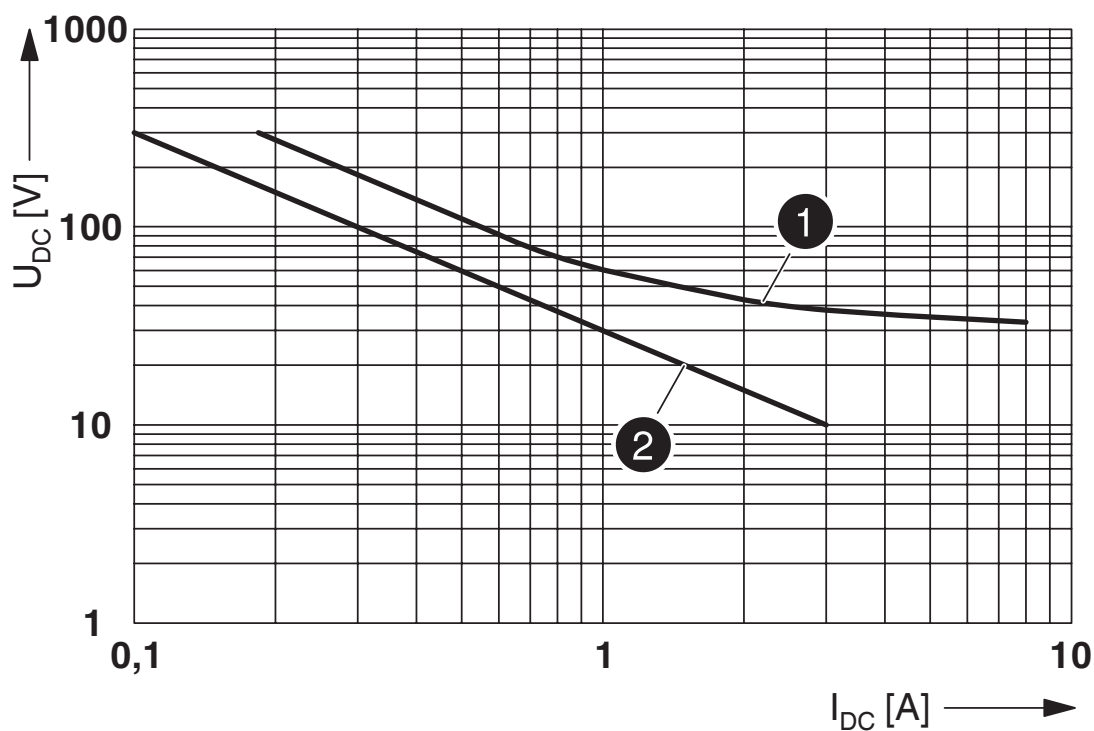
Drawings

Dimensional drawing



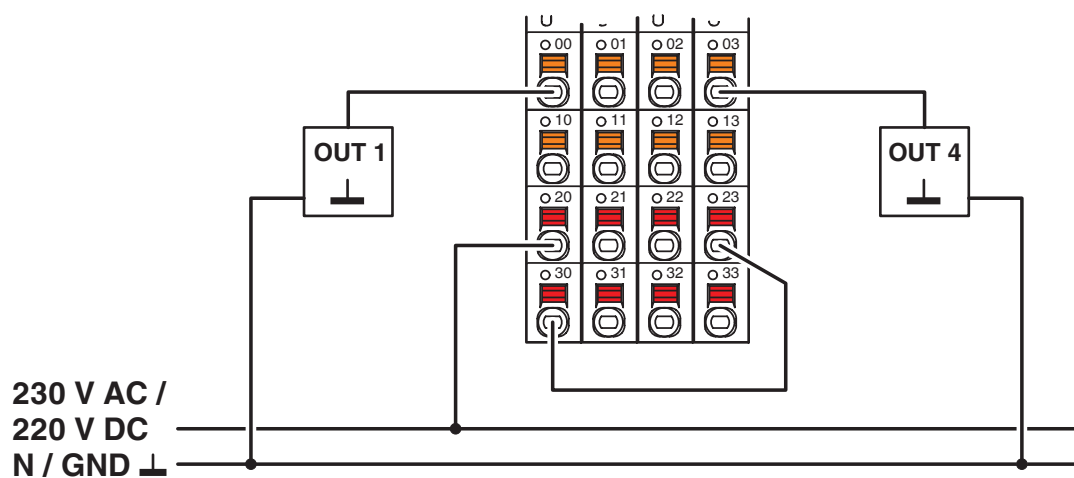
Dimensions

Diagram



DC load limit curve for REL-MLR-1X1/G 5 (1 - ohmic load, 2 - inductive load L/R = 50 ms)

Connection diagram



Connection of actuators

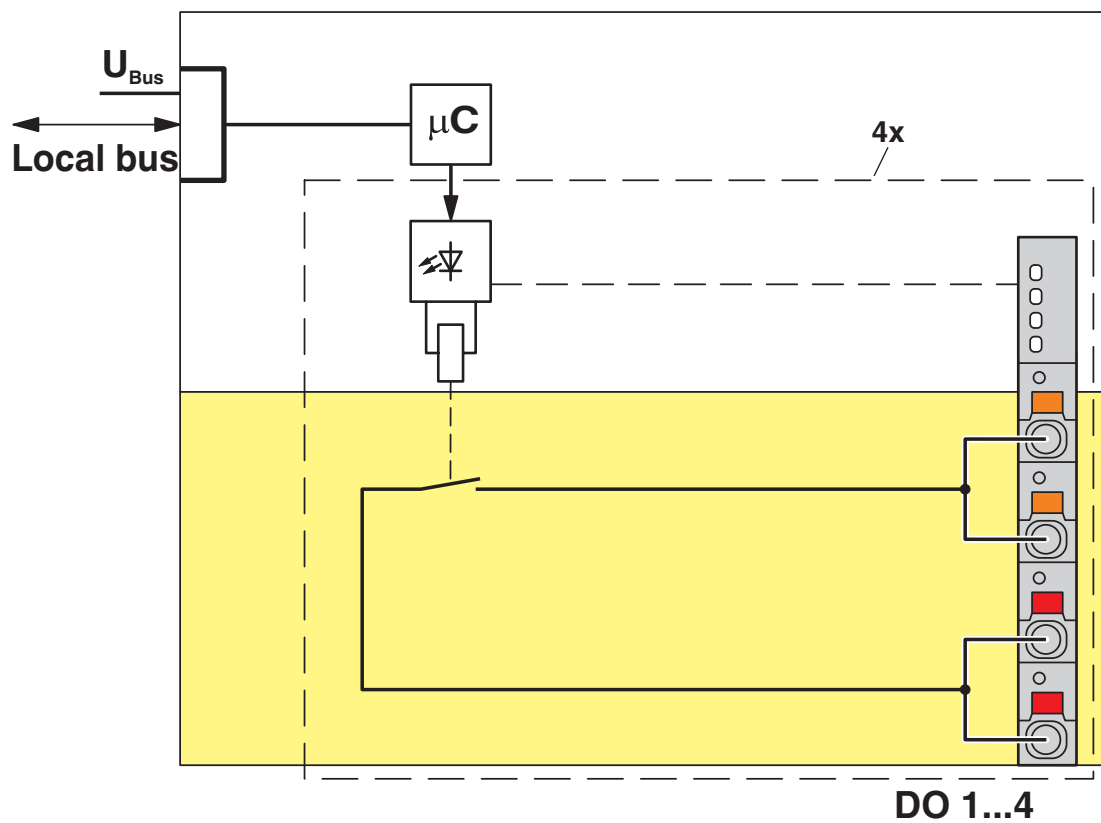
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Block diagram



Internal wiring of the terminal points

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2700608>



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705

UAE-RoHS

Approval ID: 23-02-63242

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

AXL F BS F - Bus connector

2688129

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Axioline F bus base module for housing type F



ZB 20,3 AXL UNPRINTED - Zack marker strip

0829579

<https://www.phoenixcontact.com/us/products/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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ZBF 7,5:UNBEDRUCKT - Zack Marker strip, flat

0809942

<https://www.phoenixcontact.com/us/products/0809942>



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

EMT (35X46)R - Insert label

0801604

<https://www.phoenixcontact.com/us/products/0801604>



Insert label, for marking the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, lettering field size: 35 x 46 mm, Number of individual labels: 500

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