

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Axioline F, Relay module, Relay output: 4 (floating contacts), 220 V DC / 230 V AC, 8 A, connection method: 2-wire, 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
- ✔ Diagnostic and status indicators



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 916486
GTIN	4046356916486

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

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Technical data

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)
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. 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.	0.2 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	222 g
Note on weight specifications	with connectors and bus base module
Degree of pollution	2

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. 280 mA (all relays pick up)
Power consumption	max. 1.4 W (all relays pick up)

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Technical data

Digital outputs

Output name	Relay output
Output description	Relay N/O contact
Connection method	Push-in connection
Connection technology	2-wire
Number of outputs	4 (floating contacts)
Maximum inrush current	max. 15 A (for 4 s)
Nominal output voltage	220 V DC
	230 V AC
Output current	max. 8 A (per channel, provide an external fuse)
	max. 32 A (per module)
Maximum output current per channel	8 A

Relay outputs

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)
	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)
Contact type	4 floating N/O contacts
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)
	max. 110 mA DC (250 V DC, L/R ≤ 50 ms, applications with UL approval)
Switching capacity	max. 2000 VA
Switching frequency	max. 6 (per minute)
Release time	< 5 ms
Mechanical service life	10x 10 ⁶ cycles

Electrical isolation

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Technical data

Electrical isolation

Test section	Relay contact / logic 4 kV Rated surge voltage (safe isolation according to EN 61010-2-201/IEC 61010-2-201)
	Relay contact / logic 5 kV Pulse test voltage according to EN 61850/IEC 61850
	Contact / functional earth ground 4 kV Rated surge voltage (safe isolation according to EN 61010-2-201/IEC 61010-2-201)
	Contact / functional earth ground 5 kV Pulse test voltage according to EN 61850/IEC 61850
	Contact / contact (open contact) 1 kV 50 Hz 1 min.
	Contact / contact (adjacent connectors 2.5 kV Pulse test voltage according to EN 61850/IEC 61850

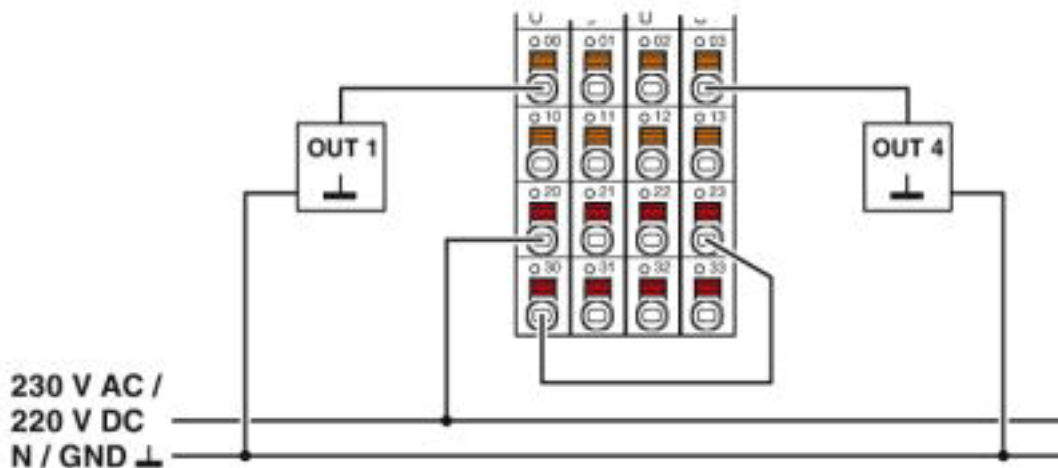
Standards and Regulations

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 20g (contact interruption) / 5g (contact closure)
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Developed according to standard	IEC 61850-3 Electrostatic discharge (ESD) EN 61000-4-2/ IEC 61000-4-2 Criterion A, 6 kV contact discharge, 8 kV air discharge
	IEC 61850-3 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, 20 V/m up to 1 GHz, 10 V/m up to 3 GHz
	IEC 61850-3 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion A, 4 kV
	IEC 61850-3 Transient overvoltage (surge) EN 61000-4-5/ IEC 61000-4-5 Criterion A, ±4 kV (asymmetrical)
	IEC 61850-3 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A; Test voltage 10 V
	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 2.5 kV asymmetrical
	IEC 61850-3 Radio interference properties EN 55022 Class B

Drawings

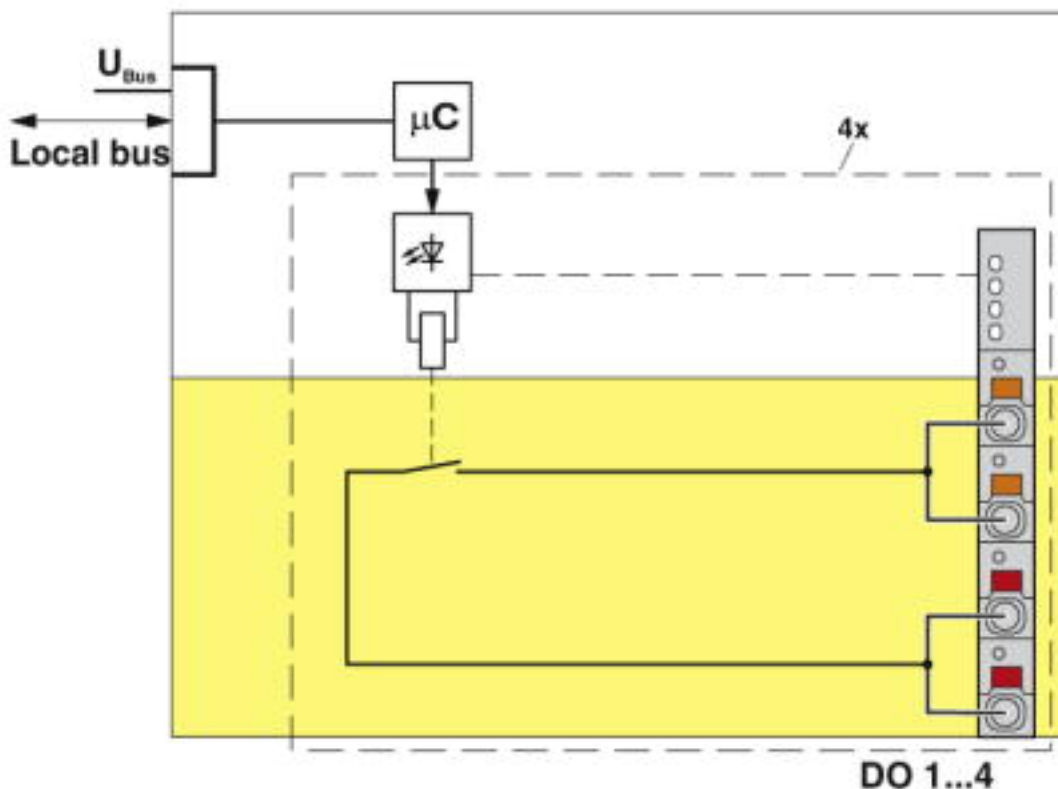
I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Connection diagram



Connection of actuators

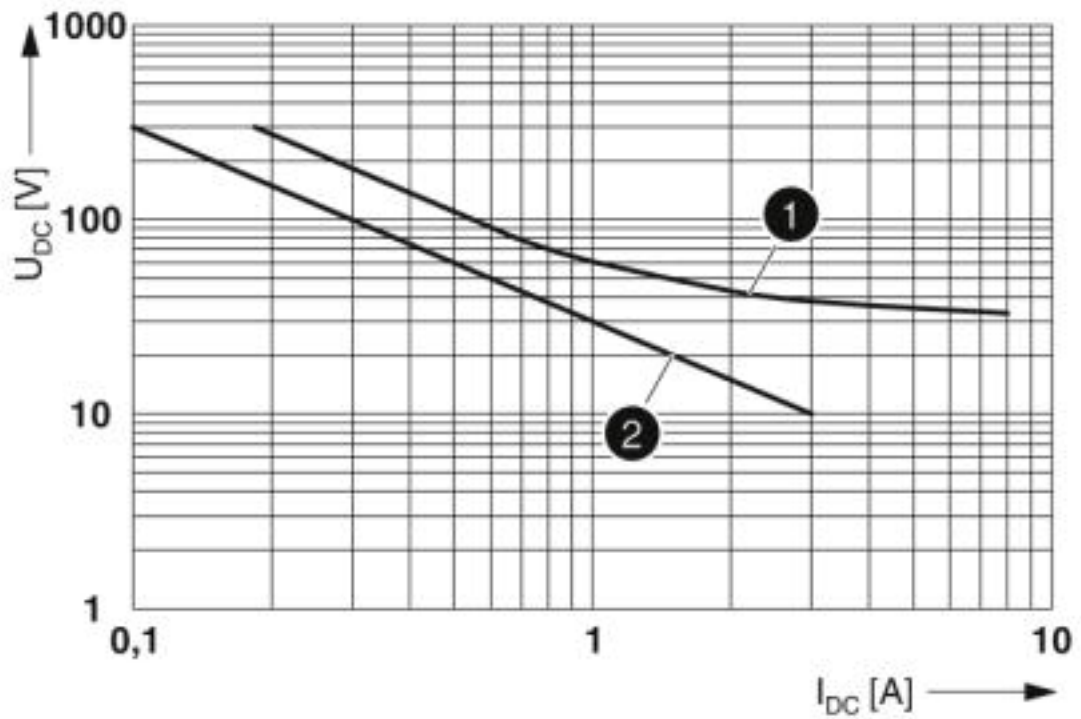
Block diagram



Internal wiring of the terminal points

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

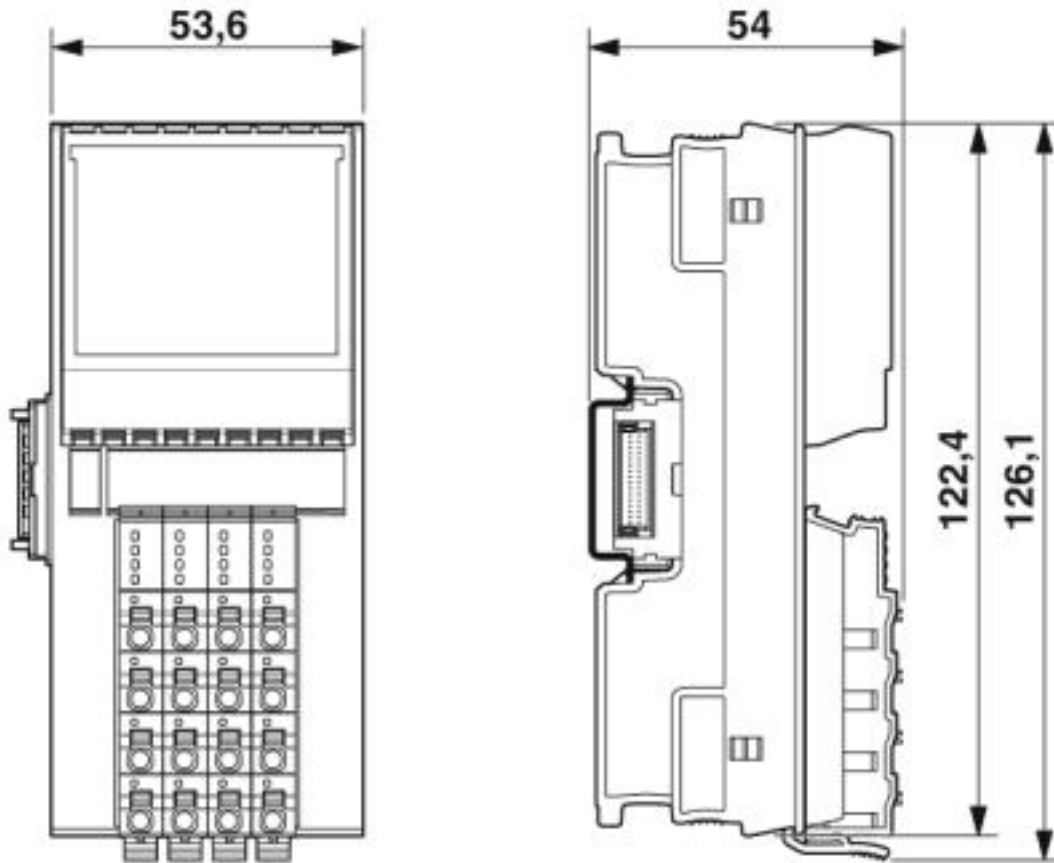
Diagram



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

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Dimensional drawing



Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

I/O module - AXL F DOR4/2 AC/220DC 1F - 2700608

Approvals

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 238705

cULus Listed



Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

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