

I/O module - AXL F DI16/1 DO8/2-2A 2H - 2702291

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Axioline F, Digital I/O module, Digital inputs: 16, 24 V DC, Connection method: 1-wire, Digital outputs: 8, 24 V DC, 2 A, Connection method: 2-wire, Transmission speed in the local bus 100 MBit/s, 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 is used to acquire and output digital signals.
The filter times of the inputs can be adjusted to increase noise immunity.
Filter times of 100 µs enable the user to implement a counter function with a maximum input frequency of 5 kHz in the application.
The outputs are protected against short circuit and overload.

Why buy this product

- ✓ 16 digital inputs according to EN 61131-2 type 1 and type 3
- ✓ 24 V DC, 2.4 mA
- ✓ Connection of sensors in single-wire technology
- ✓ Filter times can be adjusted in three increments: < 100 µs, 1000 µs or 3000 µs
- ✓ Maximum input frequency: 5 kHz
- ✓ 8 digital outputs
- ✓ 24 V DC, 2 A
- ✓ Connection of actuators in 2-wire technology
- ✓ Minimum update time of < 150 µs
- ✓ Device rating plate stored
- ✓ Diagnostic and status indicators



Key Commercial Data

Packing unit	1 STK
GTIN	 4 055626 071848
GTIN	4055626071848
Weight per Piece (excluding packing)	111.000 g
Custom tariff number	85389091
Country of origin	Germany

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Technical data

Dimensions

Width	35 mm
Height	129.9 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
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 connectors (digital inputs)
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	111 g
Note on weight specifications	with connectors and bus base module
Diagnostics messages	I/O supply failure Yes
	Short-circuit / overload of the digital outputs Yes

Interfaces

Fieldbus system	Lokalbus
Designation	Axioline F local bus
Connection method	Bus base module
Transmission speed	100 MBit/s

Axioline potentials

Communications power U_{Bus}	5 V DC (via bus base module)
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Technical data

Axioline potentials

Current consumption from U_{Bus}	max. 120 mA
Digital input and output module supply U_{IO}	24 V DC
Current consumption from U_{IO}	max. 16 A (Provide external protection; if the total current of 8 A is exceeded, connect the supply at the power connector parallel via both terminal points.)

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Connection method	Push-in connection
	1-wire
Number of inputs	16
Protective circuit	Polarity reversal protection of the inputs Parallel diode (30 V, 5 s)
Input filter time	3000 μ s (default)
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input current at U_{IN}	2.4 mA

Digital outputs

Output name	Digital outputs
Connection method	Push-in connection
	2-wire
Number of outputs	8
Protective circuit	Short-circuit protection, overload protection of the outputs Electronic
Output voltage	24 V DC
Nominal output voltage	24 V DC
Maximum output current per channel	2 A
Maximum output current per module	16 A (external fuse)
Nominal load, inductive	max. 12 VA (1.2 H, 48 Ω , with nominal voltage)
Nominal load, lamp	max. 48 W (at nominal voltage)
Nominal load, ohmic	max. 48 W (12 Ω , at nominal load)

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)/functional earth ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / 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
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

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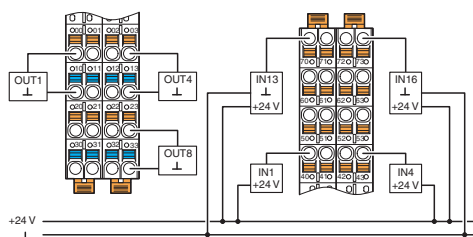
Technical data

Environmental Product Compliance

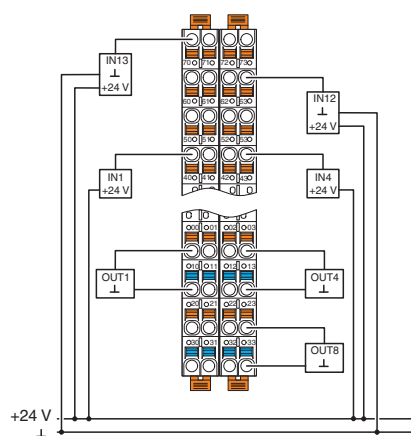
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Connection diagram

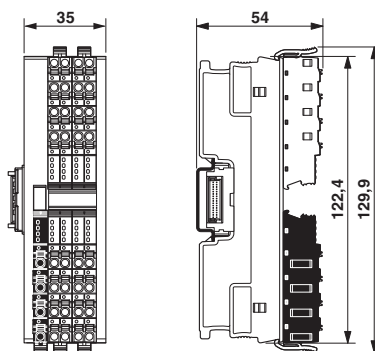


Connection diagram



Example of connection of sensors and actuators

Dimensional drawing



Classifications

eCl@ss

eCl@ss 5.1	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

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Classifications

ETIM

ETIM 5.0	EC001599
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