

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

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, Digital input module, Digital inputs: 8, 48 V DC / 60 V DC, connection method: 2-wire, corresponds to standard IEC 61850-3, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

The figure shows the AXL F DI8/2 100/220DC 1F

Product Description

The module is designed for use within an Axioline F station. It is used to acquire digital DC voltage signals in the low-voltage range. You can use low-voltage and extra-low voltage modules directly next to each other within an Axioline F station.

Your advantages

- ✓ 8 digital inputs according to EN 61131-2 type 1
- ✓ Connection of sensors in 2-wire technology
- ✓ 48 V DC / 60 V DC, 2.5 mA
- ✓ Filter time of < 1 ms
- ✓ Inputs are reverse polarity protected
- ✓ Safe isolation according to EN 61010-2-201/IEC 61010-2-201
- ✓ Device rating plate stored
- ✓ Diagnostic and status indicators
- ✓ Meets the requirements of IEC 61850-3 and IEEE 1613



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626276885
Weight per Piece (excluding packing)	222.000 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Dimensions

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

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
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.
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
Color	traffic grey A RAL 7042
Net weight	222 g
Note on weight specifications	with connectors and bus base module
Degree of pollution	2
Mounting position	any (no temperature derating) Nominal mounting position: wall mounting on horizontal DIN rail

Interfaces

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

Axioline potentials

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

Technical data

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 input modules (U _i)
Protection	max. 8 A ()

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Connection method	Push-in connection
Connection technology	2-wire
Number of inputs	8
Protective circuit	Polarity reversal protection of the inputs
Nominal input voltage U _{IN}	48 V DC
Nominal input current at U _{IN}	2.5 mA
Input filter time	< 1 ms
Input voltage	48 V (Nominal voltage)
	60 V (Nominal voltage)
	max. 100 V DC
Input voltage range "0" signal	-12 V DC ... 12 V DC
Input voltage range "1" signal	32 V DC ... 100 V DC
Input voltage range	-100 V DC ... 100 V DC

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 / I/O (adjacent connectors) 2.5 kV Pulse test voltage according to EN 61850/IEC 61850
	Logic / functional earth ground 1 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 30g
	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; 8 kV contact discharge; 8 kV air discharge

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

Technical data

Standards and Regulations

	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, ±2 kV (symmetrical), ±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 1 kV symmetrical, 2.5 kV asymmetrical
	IEC 61850-3 Radio interference properties EN 55022 Class B
Overvoltage category	III (EN 61010-2-201/IEC 61010-2-201)

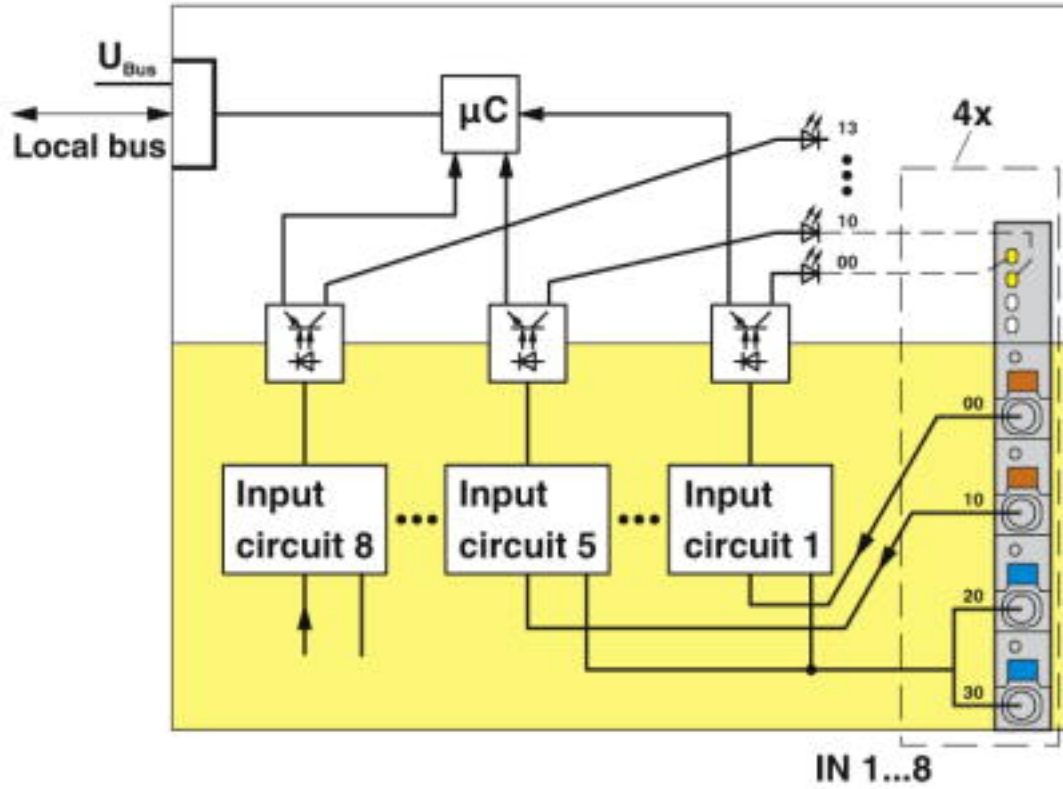
Environmental Product Compliance

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

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

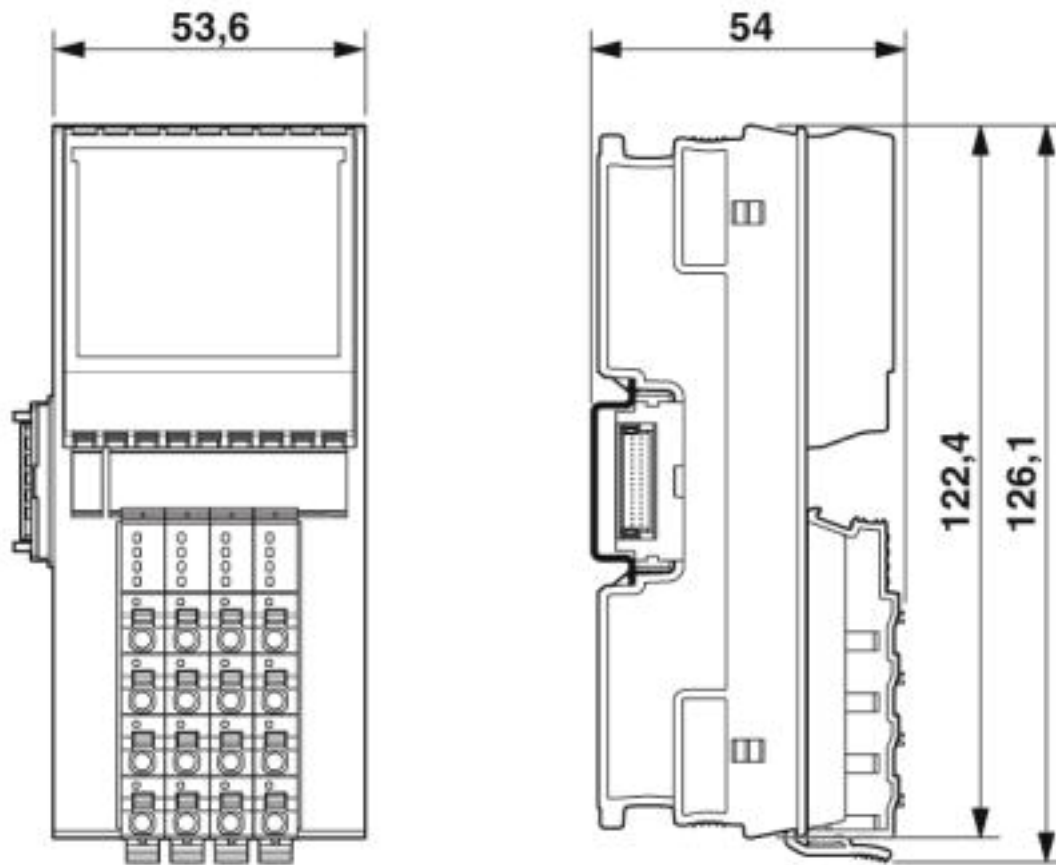
Block diagram



Internal wiring of the terminal points

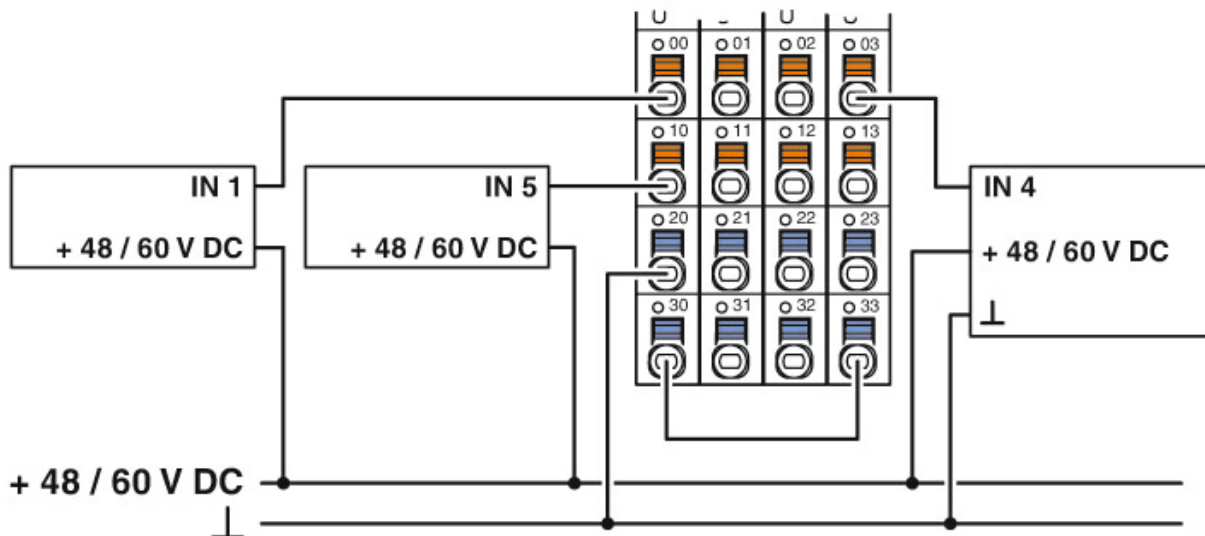
I/O module - AXL F DI8/2 48/60DC 1F - 2702654

Dimensional drawing



I/O module - AXL F DI8/2 48/60DC 1F - 2702654

Connection diagram



Connection of sensors when using external busbars

Classifications

eCl@ss

eCl@ss 5.1	27242604
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
-------------	----------

I/O module - AXL F DI8/2 48/60DC 1F - 2702654

Classifications

UNSPSC

UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

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
-----------	--	---	---------------

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

cULus Listed			
--------------	--	--	--

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 ROLLMARKER 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 DI8/2 48/60DC 1F - 2702654

Accessories

Bus connector - AXL F BS F - 2688129



Axioline F bus base module for housing type F

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

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
