

## I/O module - AXL F DI16/1 HS 1H - 2701722

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Axioline F, Digital input module, Digital inputs: 16, 24 V DC, Connection technology: 1-wire, Input filter time < 5  $\mu$ s, 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 is used to acquire digital signals.

The internal update time of < 5  $\mu$ s makes it possible to implement a counting function with the module. The input frequency of the counting amounts to a maximum of 100 kHz.

### 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
- Minimum update time of < 5  $\mu$ s, bus synchronous
- Filter times can be adjusted in three increments: no filter, 1000  $\mu$ s or 3000  $\mu$ s
- Maximum frequency of 100 kHz
- Device rating plate stored
- Diagnostic and status indicators

### Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 801645
GTIN	4046356801645
Weight per Piece (excluding packing)	180.000 g
Custom tariff number	85389091
Country of origin	Germany

## I/O module - AXL F DI16/1 HS 1H - 2701722

### Technical data

#### Dimensions

Width	35 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 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	5 % ... 95 % (according to DIN EN 61131-2)
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 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 <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

#### General

Mounting type	DIN rail
Net weight	133 g
Note on weight specifications	with connectors and bus base module
Diagnostics messages	I/O supply failure Yes

#### Interfaces

Designation	Axioline F local bus
Connection method	Bus base module
Transmission speed	100 Mbps

#### Axioline potentials

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### Technical data

#### Axioline potentials

Communications power $U_{Bus}$	5 V DC (via bus base module)
Current consumption from $U_{Bus}$	max. 120 mA
Supply of digital input modules $U_i$	24 V DC
Current consumption from $U_i$	20 mA

#### Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Connection method	Push-in connection
Connection technology	1-wire
Number of inputs	16
Protective circuit	Polarity reversal protection of the inputs Parallel diode (30 V, 5 s)
Input filter time	< 5 $\mu$ s
Input voltage range "0" signal	-3 V DC ... 8.4 V DC
Input voltage range "1" signal	9.4 V ... 30 V DC
Nominal input current at $U_{iN}$	2.3 mA

#### 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 25g, 11 ms period, half-sine shock pulse
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

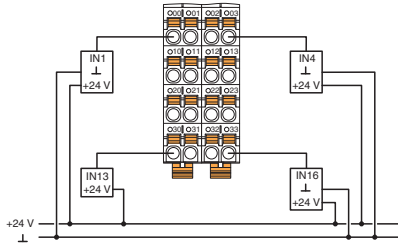
#### Environmental Product Compliance

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

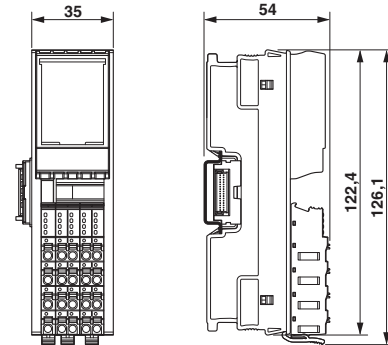
### Drawings

# I/O module - AXL F DI16/1 HS 1H - 2701722

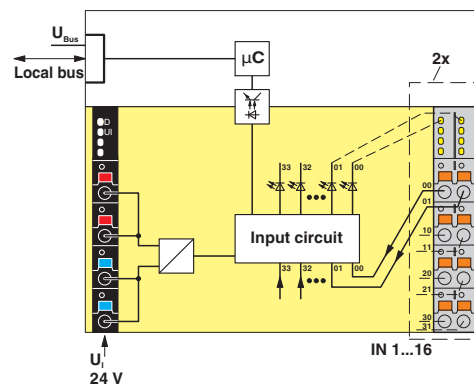
Connection diagram



Dimensional drawing



Block diagram



Internal wiring of the terminal points

## Classifications

eCl@ss

eCl@ss 4.0	27240490
eCl@ss 4.1	27240490
eCl@ss 5.0	27242208
eCl@ss 5.1	27242608
eCl@ss 6.0	27242608
eCl@ss 7.0	27242608
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 3.0	EC001045
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## Classifications

### ETIM

ETIM 4.0	EC001596
ETIM 5.0	EC001599
ETIM 6.0	EC001599

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602

## Approvals

### Approvals

Approvals

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

Connector set

## I/O module - AXL F DI16/1 HS 1H - 2701722

### Accessories

Connector set - AXL CNS 2L-O/D/UI/E1/E2 - 2700985



Axiline F connector set (for e.g., AXL F DI16/1 1H)

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### Device marking

Insert label - EMT (35X28)R - 0801602



Insert label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, Mounting type: snapped into marker carrier, Lettering field: 35 x 28 mm

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### DIN rail connector

Bus connector - AXL F BS H - 2700992



Axiline F bus base module for housing type H

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### Terminal marking

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579



Zack marker strip for Axiline 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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### Accessories

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580



Zack marker strip, flat, in 10 mm pitch, unprinted, 10-section, for individual labeling with M-PEN 0,8, X-PEN, or CMS-P1-PLOTTER