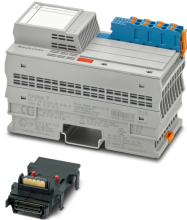


## I/O module - AXL P EX IS DO4 SD 21-60 1F - 1087078

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Axioline P EX, Digital output module, Digital outputs: 4, 21 V, 60 mA, connection technology: 2-conductor, Solenoid drive, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and connectors

### Product Description

The module is an Axioline P I/O module for use in the Axioline P modular I/O system.

The module is a modular I/O device that can be affixed to the Axioline P local bus, to communicate I/O data up to the Axioline P bus coupler, which forms the head of the station.

As an intrinsic safety I/O module, this device allows direct connection from intrinsically safe field I/O to the terminals of the module.

The module is fully hot-swappable on the Axioline P local bus, which also provides power to the module.


The module digital output characteristics of 21 V DC and 60 mA allow the connection of up to four solenoid driven, digital output signals.

### Your advantages

- Intrinsic safety
- Intrinsic safety analog inputs with connection to Zone 1, Zone 0 or Division 1
- Temperature range of -40 °C ... +70 °C



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 882062
GTIN	4055626882062
Weight per Piece (excluding packing)	400.000 g
Custom tariff number	85389099
Country of origin	United States

### Technical data

Note

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## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
	Use in potentially explosive areas is not permitted in China.

### Dimensions

Width	53.6 mm
Height	126.1 mm
Depth	77.14 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)	-40 °C ... 70 °C (Standard)
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 2000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 2000 m above sea level)
Maximum altitude	2000 m
Degree of protection	IP20
	IP20

### Connection data

Designation	Axioline P connector
Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline P: 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
Color	traffic grey A RAL 7042
Net weight	263.5 g
Note on weight specifications	with connectors and bus base module

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## Technical data

### General

Degree of pollution	2
Mounting position	any (no temperature derating)
Maximum altitude	2000 m

### Interfaces

Designation	Axioline P local bus
Connection method	Connection for bus base module
Transmission speed	100 Mbps

### Axioline potentials

Designation	Supply of the logic voltage $U_L$
Supply voltage range	19.2 V DC ... 30 V DC (via bus base module ( $U_L$ ) at AXL P BK...)
Designation	Supply of the Axioline P local bus $U_{BUS}$
Supply voltage	5 V DC (via bus base module)
Current consumption	max. 135 mA

### Digital outputs

Output name	Digital outputs
Number of outputs	4
Connection method	Push-in connection
Connection technology	2-conductor
Protective circuit	Polarity reversal protection of the outputs
Output voltage	21 V
Nominal output voltage	21 V
Output current per channel	60 mA

### Electrical isolation

Test section	5 V supply of the local bus ( $U_{BUS}$ ) / functional ground 500 V AC 62 Hz 1 min.
	24 V supply (I/O) / functional ground 500 V AC 62 Hz 1 min.
	Field to functional earth 500 V AC 62 Hz 1 min.
	Field to 5 V and 24 V supplies 1500 V AC 62 Hz 1 min.

### Standards and Regulations

Immunity to EF	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to burst	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
Immunity to surge	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion A, supply lines

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## Technical data

### Standards and Regulations

	DC: $\pm 0.5$ kV/ $\pm 0.5$ kV (symmetrical/asymmetrical), $\pm 1$ kV to shielded I/O cables
Immunity to conducted interference	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
Interference emission	Noise emission test in accordance with EN 61000-6-4/IEC 61000-6-4 Class A
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
Max. output voltage $U_o$	24.8 V
Max. output current $I_o$	180 mA
Max. output power $P_o$	1116 mW
Group	C/IIB, IIIC
Max. external capacitance $C_o$	0.86 $\mu$ F
Group	D/IIA, E, F, G, Class III
Max. external capacitance $C_o$	3.05 $\mu$ F
Group	C/IIB, IIIC
Max. external inductivity $L_o$	2.779 mH
Group	D/IIA, E, F, G, Class III
Max. external inductivity $L_o$	7.168 mH
ATEX	DEMKO 20 ATEX 2370X II 3(1)G Ex ec [ia IIB Ga] IIC T4 Gc II (1)D [Ex ia Da] IIIC
IECEX	IECEX UL 20.0044X Ex ec [ia IIB Ga] IIC T4 Gc [Ex ia Da] IIIC
UL, USA / Canada	Ind. Cont. Eq. (E238705) also Listed Ind. Cont. Eq. for haz. loc. E196811 Install in: Class I, Div. 2, Groups A, B, C, D T4 Intrinsically safe outputs for: Class I, Groups C, D; Class II, Groups E, F, G; Class III; [Ex ia] Haz loc Class I, Zone 2, AEx ec [ia IIB Ga] IIC T4 Gc [AEx ia Da] IIIC Ex ec [ia IIB Ga] IIC T4 Gc [Ex ia Da] IIIC
Safety-related maximum voltage $U_m$	250 V
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
Overvoltage category	II

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;

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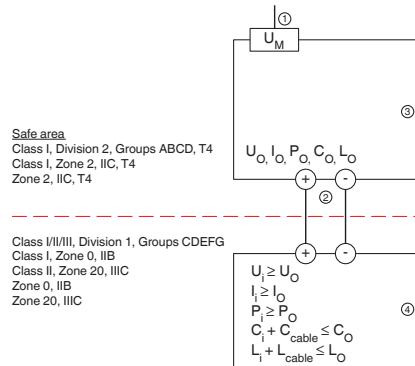
## Technical data

### Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Schematic diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27242604
eCl@ss 11.0	27242604
eCl@ss 9.0	27242604

### 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

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## Approvals

Ex Approvals

ATEX / IECEx / UL Listed / cUL Listed / CCC / cULus Listed

### 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

DIN rail connector

Bus connector - AXL P BS F2 - 1052428



Axiline P bus base module for housing type F2

## Partition plate

Separating plate - AXL F/P IO EX PP - 1100201

Axiline F/P partition plate for intrinsically safe modules



## Shield connection

## I/O module - AXL P EX IS DO4 SD 21-60 1F - 1087078

### Accessories

Shield connection - AXL SHIELD SET - 2700518



Axioline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)

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### 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

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### Terminal resistor

Termination block - AXL P TERM PAIR - 2316402



Axioline P terminator pair

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### Additional products

Termination block - AXL P TERM PAIR - 2316402



Axioline P terminator pair

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### Spare parts

## I/O module - AXL P EX IS DO4 SD 21-60 1F - 1087078

### Accessories

Bus connector - AXL P BS F2 - 1052428



Axioline P bus base module for housing type F2