

<https://www.phoenixcontact.com/gb/products/2701499>

## Distributed I/O device - AXL E PB DIO16 M12 6P - 2701499

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Axioline E, Digital I/O device, PROFIBUS DP, M12 fast connection technology, Digital inputs: 16 , 24 V DC, connection method: 4-wire, Digital outputs: , 24 V DC, 500 mA, connection method: 3-wire, Plastic housing, degree of protection: IP65/IP67

### Product Description


The Axioline E device is designed for use within a PROFINET network. It is used to acquire and output digital signals.

### Your advantages

- ✓ Connection to PROFIBUS DP using M12connectors (B-coded)
- ✓ Baud rate of up to 12 Mbaud (automatic baud rate detection)
- ✓ Connection of digital sensors and actuators using M12connectors (A-coded)
- ✓ Diagnostic and status indicators
- ✓ Short-circuit and overload protection of the sensor supply
- ✓ IP65/IP67 degree of protection



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 763530
GTIN	4046356763530
Weight per Piece (excluding packing)	480.000 g
Custom tariff number	85176200
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	60 mm
Height	185 mm

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### Technical data

#### Dimensions

Depth	30.5 mm
Note on dimensions	The height is 212 mm including fixing clips.
Drill hole spacing	198.5 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
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	IP65/IP67

#### General

Housing material	Pocan®
Mounting type	Wall mounting
Color	anthracite
Net weight	480 g

#### Interfaces

Designation	PROFIBUS DP
No. of channels	2
Connection method	M12 fast connection technology
Note on the connection method	B-coded
Designation connection point	Copper cable
Transmission speed	9.6 kbps ... 12 Mbps (Automatic baud rate detection)
Transmission physics	PROFIBUS-DP-compliant copper cable
Address area assignment	1 ... 126, adjustable
Number of positions	5

#### System limits of the bus coupler

Designation	PROFIBUS DP
Equipment type	PROFIBUS slave
System-specific protocols	PROFIBUS protocols DP V1

#### Supply

Designation	Actuators (U <sub>A</sub> ) for additional devices
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 3 mA ±15 % (at 24 V DC)

#### Digital inputs

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#### Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Connection method	M12 connector, double occupancy
Connection technology	4-wire
Number of inputs	16
Protective circuit	Overload protection, short-circuit protection of sensor supply
Nominal input voltage $U_{IN}$	24 V DC
Nominal input current at $U_{IN}$	typ. 3 mA
Input filter time	< 1000 $\mu$ s
Cable length	max. 30 m (To the sensor)
Input voltage range "0" signal	0 V ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC

#### Digital outputs

Output name	Digital outputs
Connection method	M12 connector, double occupancy
Connection technology	3-wire
Number of outputs	16
Protective circuit	Overload protection, short-circuit protection of outputs yes
Output voltage	24 V DC
Nominal output voltage	24 V DC (from voltage $U_S$ )
Maximum output current per channel	500 mA
Nominal load, inductive	12 VA (1.2 H, 48 $\Omega$ , with nominal voltage)
Nominal load, ohmic	12 W (48 $\Omega$ , with nominal voltage)
Switching frequency	max. 5500 per second (with at least 50 mA load current)
Output voltage when switched off	max. 1 V
Output current when switched off	max. 20 $\mu$ A
Behavior with overload	Auto restart
Reverse voltage resistance to short pulses	Reverse voltage proof

#### Electrical isolation

Test section	24 V supply (communications power and sensor supply, digital inputs/ outputs)/bus connection 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, digital inputs/ outputs)/FE 500 V AC 50 Hz 1 min.
	Bus connection / FE 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply)/24 V supply (communications power and sensor supply, digital inputs/outputs) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply)/bus connection 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply)/FE 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
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### Technical data

#### Standards and Regulations

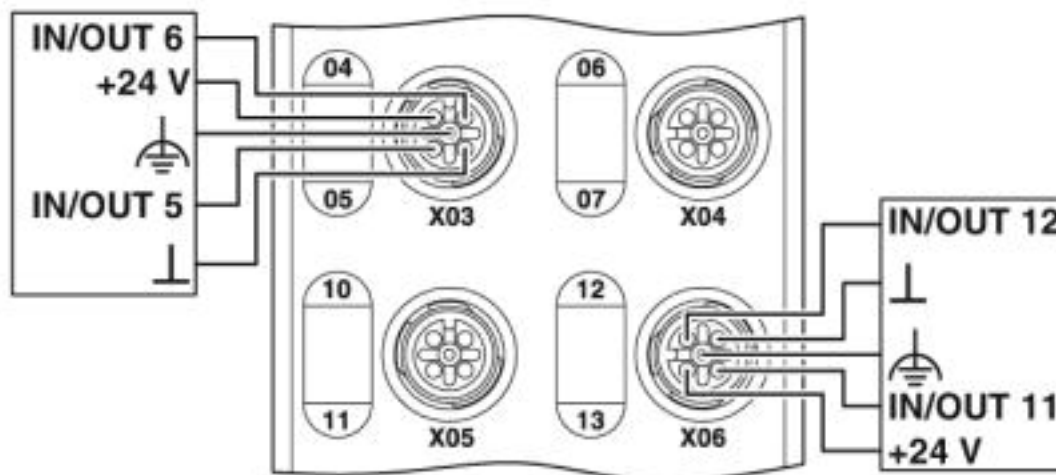
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g, 11 ms period, half-sine shock pulse
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

#### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

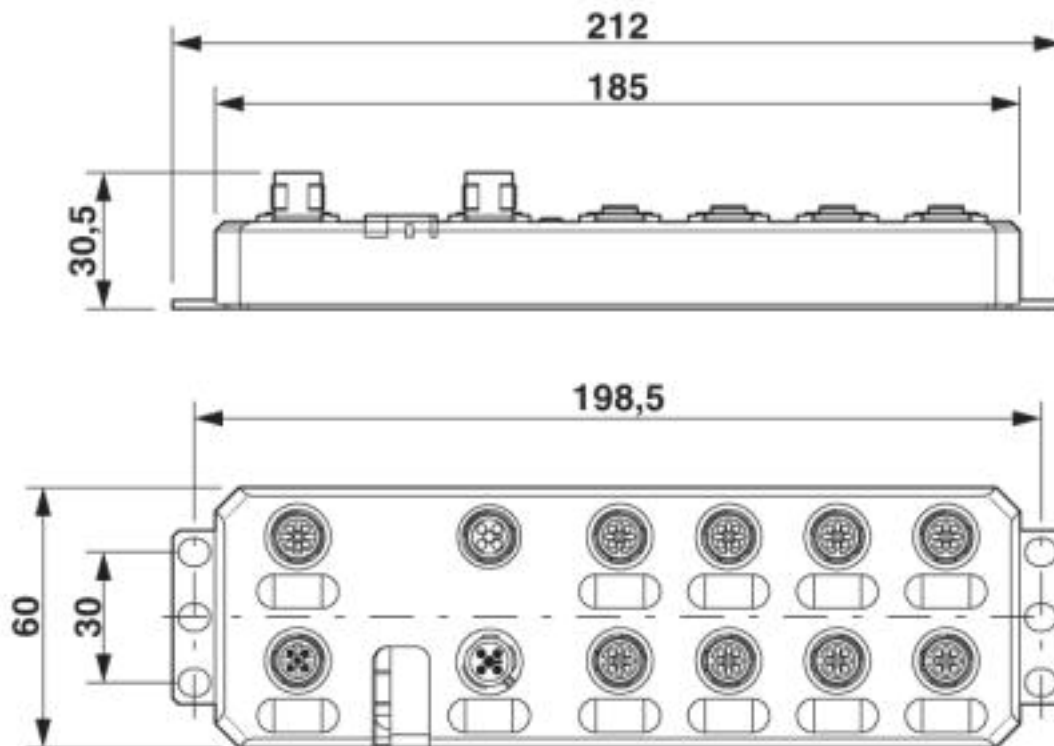
### Drawings

Connection diagram



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Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 4.0	27240400
eCl@ss 4.1	27240400
eCl@ss 5.0	27242200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

#### ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

#### UNSPSC

UNSPSC 6.01	43172015
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### Classifications

#### UNSPSC

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

### Approvals

#### Approvals

##### Approvals

UL Listed / cUL Listed / PROFIBUS / cULus Listed

##### Ex Approvals


UL Listed / cUL Listed / 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 140324
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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 140324
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PROFIBUS	Z01809
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cULus Listed	
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