

## Distributed I/O device - AXL E PB IOL8 DI4 M12 6M - 2701508

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Axioline E PROFIBUS device in a metal housing with 8 IO-Link ports and 4 digital inputs, 24 V DC, M12 fast connection technology

### Why buy this product

- ✓ Connection to PROFIBUS DP using M12connectors (B-coded)
- ✓ Baud rate of up to 12 Mbaud (automatic baud rate detection)
- ✓ Connection of four IO-Link devices with additional digital input
- ✓ Connection of four IO-Link actuators with additional power supply
- ✓ Connection of IO-Link ports using M12connectors (A-coded, 5-pos.)
- ✓ Diagnostic and status indicators
- ✓ Short-circuit and overload protection of the sensor supply
- ✓ IP65/IP67 degree of protection



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 763608
GTIN	4046356763608

### 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
Depth	38 mm
Note on dimensions	The height is 194.5 mm including the mounting plate. With fixing clips pulled out, the height is 212 mm. The depth is 38 mm including the mounting plate (30.5 mm without the mounting plate).

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## Technical data

### Dimensions

Drill hole spacing	198.5 mm
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### 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	Zinc die-cast
Mounting type	Wall mounting or DIN rail mounting; both with mounting plate.
Net weight	710 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	Module electronics and sensors (U <sub>S</sub> )
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Nominal supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	max. 12 A
Typical current consumption	170 mA ±15 % (at 24 V DC)
Designation	Actuators (U <sub>A</sub> )
Connection method	M12 connector (T-coded)
Number of positions	4

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## Technical data

### Supply

Supply voltage	24 V DC
Nominal supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	max. 12 A
Typical current consumption	30 mA ±15 % (at 24 V DC)

### Supply of the IO-Link ports

Nominal voltage for I/O supply	24 V DC
Nominal current for every IO-Link port	150 mA (at C/Q (pin 4), maximum of 1.6 A over all 8 IO-Link C/Q and L+ cables)
	200 mA (at L+/L- (pin 1 and pin 3), during startup, up to 1.6 A for short periods)
	max. 2 A (at U <sub>A</sub> (IO-Link B ports, pin 2 and pin 5))
Type of protection	Overload protection
Permissible cable length	< 20 m

### Digital inputs

Description of the input	IO-Link ports in digital input (DI) mode
Connection method	M12 connector, X01 ... X04 have double occupancy
Connection technology	3-wire
Nominal input voltage U <sub>IN</sub>	24 V DC
Input voltage range "0" signal	-0.3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Nominal input current	typ. 3 mA
Sensor current per channel	max. 200 mA (from L+/L-)
Total sensor current	max. 1.6 A (from L+/L-)
Input filter time	< 1000 µs
Input frequency	0.5 kHz
Type of protection	Overload protection
	Short-circuit protection for the sensor supply

### IO-Link inputs

Description of the input	Digital inputs at pin 2 for type A ports
Connection method	M12 connector, X01 ... X04 have double occupancy
IO-Link ports	4 M12 fast connection technology 3-wire Class A
	4 M12 fast connection technology 3-wire Class B
Nominal input voltage U <sub>IN</sub>	24 V DC
Input voltage range "0" signal	-0.3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Nominal input current	typ. 3 mA
Sensor current per channel	max. 200 mA (from L+/L-)
Total sensor current	max. 1.6 A (from L+/L-)
Input filter time	< 1000 µs
Input frequency	0.5 kHz

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### Technical data

#### IO-Link inputs

Type of protection	Overload protection
	Short-circuit protection for the sensor supply

#### Digital outputs

Output description	IO-Link ports in digital output (DO) mode
Connection method	M12 connector, X01 ... X04 have double occupancy
Connection technology	3-wire
Number of outputs	max. 8
Nominal output voltage	24 V DC
Maximum output current per channel	150 mA
Maximum output current per device	1.2 A
Nominal load, ohmic	3.6 W (160 Ω, at nominal load)
Nominal load, inductive	3.6 VA (0.8 H, 160 Ω, at nominal load)
Signal delay	max. 150 μs (when switched on)
	max. 200 μs (when switched off)
Switching rate	1 per second, maximum (at nominal inductive load)
Limitation of the voltage induced on circuit interruption	-15 V DC
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 μA
Type of protection	Overload protection
	Short-circuit protection
Behavior with overload	Shutdown with automatic restart

#### Electrical isolation

Test section	24 V supply (communications power and sensor supply, IO-Link ports)/ bus connection 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, IO-Link ports)/ 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, IO-Link ports) 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
	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;
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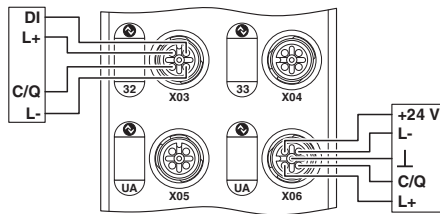
## Technical data

### Environmental Product Compliance

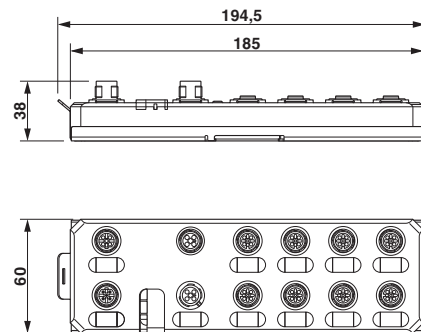
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

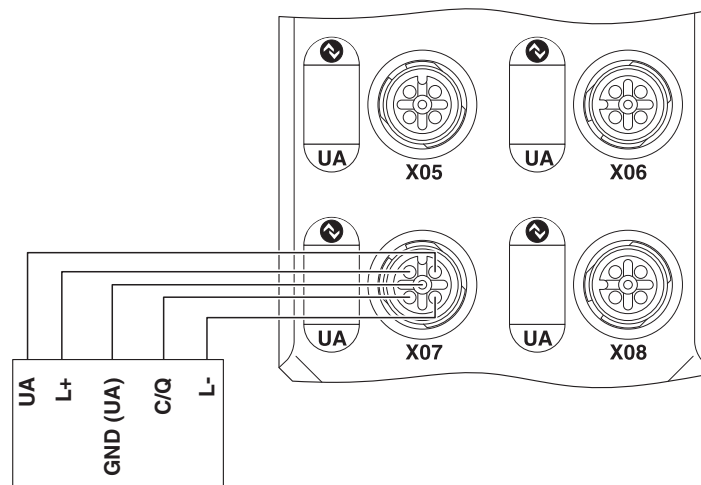
Connection diagram



Dimensional drawing



Connection diagram



## Approvals

Approvals

Approvals

UL Listed / cUL Listed / PROFIBUS / cULus Listed

Ex Approvals


UL Listed / cUL Listed / cULus Listed


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### Approvals


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#### 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	<a href="http://www.profibus.com">http://www.profibus.com</a>	Z01808
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cULus Listed	
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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>