

## Distributed I/O device - AXL E S3 DI8 DO4 2A M12 6P - 2701546

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Axioline E, Digital I/O device, Sercos, M12 fast connection technology, Digital inputs: 8, 24 V DC, connection method: 4-wire, Digital outputs: 4, 24 V DC, 2 A, connection method: 3-wire, Plastic housing

### Product Description

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

### Why buy this product

- ✓ Connection to Sercos network using M12connectors (D-coded)
- ✓ Transmission speed of 100 Mbps with a minimum cycle time of 250 µs
- ✓ 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 STK
GTIN	
GTIN	4046356763936

### 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	30.5 mm
Note on dimensions	The height is 212 mm including fixing clips.

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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	Pocan®
Mounting type	Wall mounting
Net weight	480 g

### Interfaces

Designation	Sercos
No. of channels	2
Connection method	M12 fast connection technology
Note on the connection method	D-coded
Designation connection point	Copper cable
Transmission speed	100 Mbps (with auto negotiation)
Number of positions	4

### System limits of the bus coupler

Designation	Sercos
Equipment type	Sercos slave
Device profile	FSP_IO
System-specific protocols	Sercos protocols Sercos
	Sercos protocols S/IP
Protocols supported	HTTP
	TFTP
	FTP
Specification	Sercos specification 1.1.2

### 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

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## Technical data

### Supply

Typical current consumption	140 mA ±15 % (at 24 V DC)
Designation	Actuators (U <sub>A</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	30 mA ±15 % (at 24 V DC)

### 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	8
Type of protection	Overload protection, short-circuit protection of sensor supply
Input filter time	< 1000 µs
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input current at U <sub>IN</sub>	typ. 3 mA

### Digital outputs

Output name	Digital outputs
Connection method	M12 connector, (A-coded)
Connection technology	3-wire
Number of outputs	4
Type of protection	Overload protection, short-circuit protection of outputs
Output voltage	24 V
Nominal output voltage	24 V DC
Maximum output current per channel	2 A
Nominal load, inductive	12 VA (1.2 H, 48 Ω, with nominal voltage)
Nominal load, ohmic	12 W (48 Ω, with nominal voltage)

### Electrical isolation

Test section	24 V supply (communications power and sensor supply, digital inputs)/ bus connection (Ethernet 1) 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, digital inputs)/ bus connection (Ethernet 2) 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, digital inputs)/ FE 500 V AC 50 Hz 1 min.
	Bus connection (Ethernet 1)/FE 500 V AC 50 Hz 1 min.
	Bus connection (Ethernet 2)/FE 500 V AC 50 Hz 1 min.
	Bus connection (Ethernet 1)/bus connection (Ethernet 2) 500 V AC 50 Hz 1 min.

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## Technical data

### Electrical isolation

	24 V supply (actuator supply, digital outputs)/24 V supply (communications power and sensor supply, digital inputs) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/bus connection (Ethernet 1) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/bus connection (Ethernet 2) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/FE 500 V AC 50 Hz 1 min.

### Standards and Regulations

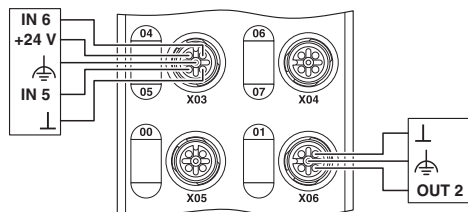
Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g, 11 ms period, half-sine shock pulse
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

### Environmental Product Compliance

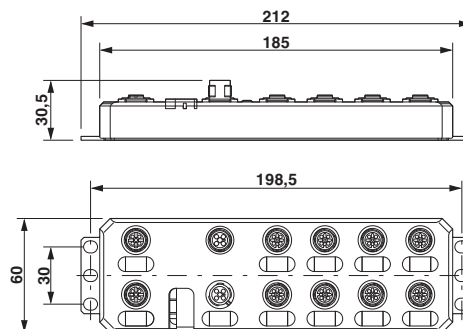
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Connection diagram



Dimensional drawing



## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / Sercos / cULus Listed

Ex Approvals


UL Listed / cUL Listed / cULus Listed

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## 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 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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Sercos			C-S3-1.0044
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cULus Listed			
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