

## Distributed I/O device - AXL E ETH DI8 DO8 M12 6P - 2701532

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Axioline E, Digital I/O device, Ethernet, M12 fast connection technology, Digital inputs: 8, 24 V DC, Connection technology: 4-wire, Digital outputs: 8, 24 V DC, 500 mA, Connection technology: 3-conductor, Plastic housing, Degree of protection IP65/67

### Product Description

The Axioline E device is designed for use within an Ethernet network (Modbus/TCP). It is used to acquire and output digital signals.


### Why buy this product

- Connection to Ethernet network using M12connectors (D-coded)
- Transmission speed of 10 Mbps and 100 Mbps
- 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



Modbus/TCP (UDP)

### Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 763806
GTIN	4046356763806
Weight per Piece (excluding packing)	540.000 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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### Technical data

#### Dimensions

Width	60 mm
Height	185 mm
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
Net weight	480 g

#### Interfaces

Fieldbus system	Ethernet
Designation	Ethernet
Connection method	M12 fast connection technology
Note on connection method	D-coded
Designation connection point	Copper cable
Transmission speed	10/100 Mbps (with auto negotiation)
Number of positions	4

#### System limits of the bus coupler

Designation	Modbus/TCP
Equipment type	Modbus slave (server)
System-specific protocols	Modbus protocols Modbus/TCP
Protocols supported	SNMP v1
	HTTP
	TFTP
	FTP
	BootP
	DHCP

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### Technical data

#### System limits of the bus coupler

Specification	Modbus application protocol V1.1b
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#### Power supply for module electronics

Designation	Module electronics and sensors ( $U_S$ )
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	190 mA $\pm$ 15 % (at 24 V DC)
Designation	Actuators ( $U_A$ )
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 $\pm$ 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
Protective circuit	Overload protection, short-circuit protection of sensor supply
Input filter time	< 1000 $\mu$ s
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 $U_{IN}$	typ. 3 mA

#### Digital outputs

Output name	Digital outputs
Connection method	M12 connector, double occupancy
Connection technology	3-conductor
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs Electronic
Output voltage	24 V DC
Nominal output voltage	24 V DC (from voltage $U_A$ )
Maximum output current per channel	500 mA

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### Technical data

#### Digital outputs

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.
	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 = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Approvals

#### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

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### Approvals


Ex Approvals

UL Listed / cUL Listed / cULus Listed

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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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