

Distributed I/O device - AXL E ETH IOL8 DI4 M12 6M - 2701541

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

Product Description

The Axioline E device is designed for use within an Ethernet network (Modbus/TCP). It enables the operation of up to eight IO-Link sensors/actuators and is also used to acquire digital signals. The device is designed for use in systems manufacturing. It is suitable for use without a control cabinet under harsh industrial conditions. The Axioline E device can be used on tool platforms, directly on welding robots or in conveying technology, for example.

Why buy this product

- ✓ 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



Modbus/TCP (UDP)  **IO-Link**

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 763899
GTIN	4046356763899
Weight per Piece (excluding packing)	720.000 g
Custom tariff number	85176200
Country of origin	Germany

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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).
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	Zinc die-cast
Mounting type	Wall mounting or DIN rail mounting; both with mounting plate.
Net weight	704.3 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

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System limits of the bus coupler

	HTTP
	TFTP
	FTP
	BootP
	DHCP
Specification	Modbus application protocol V1.1b

Power supply for module electronics

Connection method	M12 connector
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	180 mA ±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	28 mA ±15 % (at 24 V DC)

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-conductor
Nominal input voltage U _{IN}	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
Protective circuit	Overload protection Electronic
	Short-circuit protection for the sensor supply Electronic

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Digital outputs

Output description	IO-Link ports in digital output (DO) mode
Connection method	M12 connector, X01 ... X04 have double occupancy
Connection technology	3-conductor
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 μ s (when switched on)
	max. 200 μ s (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 μ A
Protective circuit	Overload protection
	Short-circuit protection Electronic
Behavior with overload	Shutdown with automatic restart

Electrical isolation

Test section	24 V supply (communications power and sensor supply, IO-Link ports)/bus connection (Ethernet 1) 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, IO-Link ports)/bus connection (Ethernet 2) 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 (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)/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 (Ethernet 1) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply)/bus connection (Ethernet 2) 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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Standards and Regulations

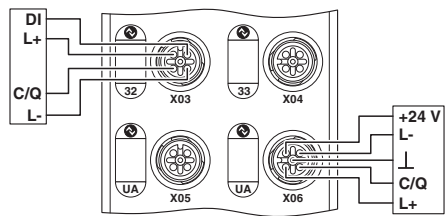
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g, 11 ms period, half-sine shock pulse
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

Environmental Product Compliance

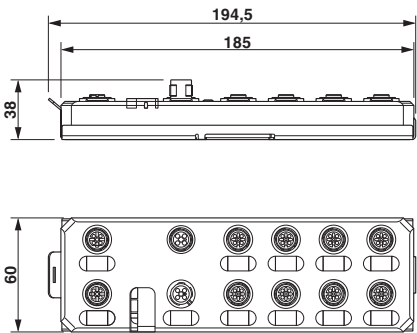
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

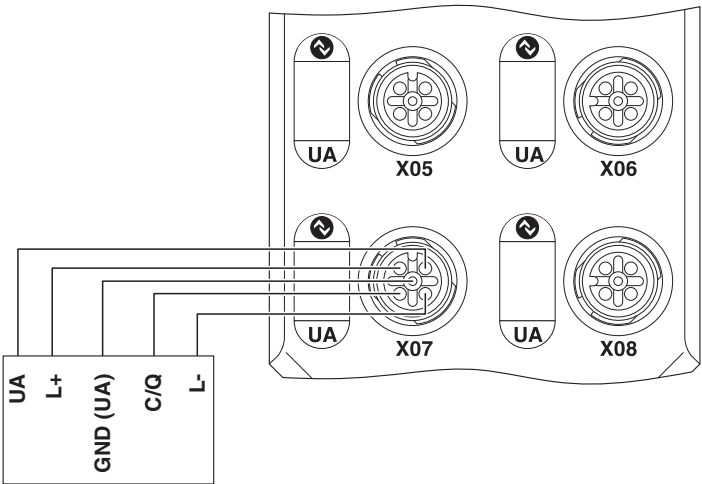
Connection diagram



Dimensional drawing



Connection diagram



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Approvals

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UL Listed / cUL Listed / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
cULus Listed			