

Distributed I/O device - AXL E EC DI8 DO4 2A M12 6P - 2701523

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Axioline E, Digital I/O device, EtherCAT®, 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, degree of protection: IP65/67

Product Description

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

Your advantages

- ✓ Connection to EtherCAT® network using M12connectors (D-coded)
- ✓ Transmission speed of 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



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4046356763738 |

Technical data

Note

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

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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Dimensions

| | |
|--------------------|----------|
| 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 | 550 g |

Interfaces

| | |
|-------------------------------|----------------------------------|
| Designation | EtherCAT® |
| 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 | EtherCAT® |
| Equipment type | EtherCAT® slave |
| System-specific protocols | Mailbox protocols CANopen® over EtherCAT® |
| | Mailbox protocols File access over EtherCAT® |
| Type of addressing | Auto-increment addressing |
| | Fixed position addressing |
| | Logical addressing |
| Specification | ETG.1000 V1.02 |

Supply

| | |
|------------------------------|--|
| 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 | typ. 140 mA ±15 % (at 24 V DC) |
| Designation | Actuators (U _A) |

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Supply

| | |
|------------------------------|--|
| 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 | typ. 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 | 0 V ... 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, (A-coded) |
| Connection technology | 3-wire |
| Number of outputs | 4 |
| Type of protection | Overload protection, short-circuit protection of outputs |
| Output voltage | 24 V DC |
| Nominal output voltage | 24 V DC (from voltage U _A) |
| Maximum output current per channel | 2 A |
| Nominal load, inductive | 48 VA (1.2 H, 48 Ω, with nominal voltage) |
| Nominal load, ohmic | 48 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. |

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Electrical isolation

| | |
|--|--|
| | 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

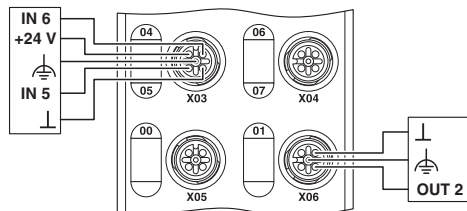
| | |
|------------------|--|
| Mechanical tests | Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g |
| | Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g, 11 ms period, half-sine shock pulse |
| | Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g |
| Protection class |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

Environmental Product Compliance

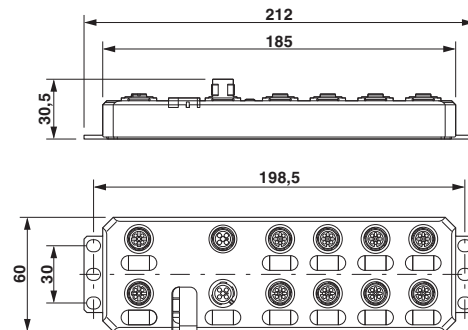
| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 25; |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Connection diagram



Dimensional drawing



Approvals

Approvals

Approvals

UL Listed / cUL Listed / EtherCAT / cULus Listed


Ex Approvals


UL Listed / cUL Listed / cULus Listed

Approval details

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Approvals

| | | | |
|-----------|---|---|---------------|
| 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 |
|------------|---|---|---------------|

| | | | |
|----------|--|--|----------|
| EtherCAT | | | 0x84_001 |
|----------|--|--|----------|

| | | | |
|--------------|---|--|--|
| cULus Listed |  | | |
|--------------|---|--|--|

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