

# AXL E ETH DI16 M12 6P - Digital module



2701533

<https://www.phoenixcontact.com/us/products/2701533>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Axioline E, Digital input device, Ethernet, M12 connector, Digital inputs: 16, 24 V DC, connection technology: 4-conductor, Plastic housing, degree of protection: IP65/IP67

## Product description

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

## Your advantages

- Connection to Ethernet network using M12 connectors (D-coded)
- Transmission speed of 10 Mbps and 100 Mbps
- Connection of digital sensors using M12connectors (A-coded)
- Diagnostic and status indicators
- Short-circuit and overload protection of the sensor supply
- IP65/IP67 degree of protection

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2701533       |
| Packing unit                         | 1 pc          |
| Sales key                            | DR04          |
| Product key                          | DRI7DB        |
| GTIN                                 | 4046356763813 |
| Weight per piece (including packing) | 549 g         |
| Weight per piece (excluding packing) | 480 g         |
| Customs tariff number                | 85176200      |
| Country of origin                    | DE            |

2701533

<https://www.phoenixcontact.com/us/products/2701533>

## Technical data

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 60 mm  |
| Height              | 185 mm   |
| Depth               | 30.5 mm  |
| Drill hole spacing  | 198.5 mm   |
| Note on dimensions  | The height is 212 mm including fixing clips.                                       |

### Material specifications

|                  |        |
|------------------|--------|
| Housing material | Pocan® |
|------------------|--------|

### Interfaces

#### Ethernet

|                               |                                     |
|-------------------------------|-------------------------------------|
| Number of interfaces          | 2                                   |
| No. of channels               | 2                                   |
| Connection method             | M12 connector                       |
| Note on the connection method | D-coded                             |
| Number of positions           | 4                                   |
| Transmission speed            | 10/100 Mbps (with auto negotiation) |

#### Modbus/TCP

|                           |                                   |
|---------------------------|-----------------------------------|
| Equipment type            | Modbus slave (server)             |
| System-specific protocols | Modbus protocols Modbus/TCP       |
| Protocols supported       | SNMP v1                           |
|                           | HTTP                              |
|                           | TFTP                              |
|                           | FTP                               |
|                           | BootP                             |
|                           | DHCP                              |
| Specification             | Modbus application protocol V1.1b |

### Input data

#### Digital:

|                          |                           |
|--------------------------|---------------------------|
| Input name               | Digital inputs            |
| Description of the input | IEC 61131-2 types 1 and 3 |
| Number of inputs         | 16                        |

2701533

<https://www.phoenixcontact.com/us/products/2701533>

|                                   |  |
|-----------------------------------|--|
| Cable length                      | max. 30 m (to the sensor)                                      |
| Connection method                 | M12 connector double occupancy                                 |
| Connection technology             | 4-conductor  |
| Input voltage range "0" signal    | 0 V ... 5 V DC   |
| Input voltage range "1" signal    | 11 V DC ... 30 V DC  |
| Nominal input voltage $U_{IN}$    | 24 V DC  |
| Nominal input current at $U_{IN}$ | typ. 3 mA  |
| Sensor current per channel        | typ. 75 mA (from $U_S$ )                                       |
| Total sensor current              | max. 1.2 A (per device)  |
| Input filter time                 | < 1000 $\mu$ s   |
| Protective circuit                | Overload protection, short-circuit protection of sensor supply |

## Product properties

|                    |                 |
|--------------------|-----------------|
| Product type       | I/O component   |
| Product family     | Axioline E      |
| Type               | Stand-alone     |
| Special properties | Plastic housing |

## Electrical properties

### Potentials

|                                |                         |
|--------------------------------|-------------------------|
| Voltage supply $U_S$           | 24 V DC                 |
| Power supply at $U_S$          | max. 4 A                |
| Current consumption from $U_S$ | typ. 8 mA<br>max. 1.2 A |

### Supply: Module electronics and sensors

|                      |  |
|----------------------|--|
| Designation          | Supply of module electronics and sensors ( $U_S$ )                 |
| Connection method    | M12 connector, T-coded   |
| Number of positions  | 4  |
| Supply voltage       | 24 V DC  |
| Supply voltage range | 18 V DC ... 31.2 V DC (including all tolerances, including ripple) |
| Current consumption  | typ. 190 mA $\pm$ 15 % (at 24 V DC)<br>max. 12 A                   |

### Supply: Actuators

|                      |  |
|----------------------|--|
| Designation          | Supply of actuators ( $U_A$ ) for additional devices               |
| Connection method    | M12 connector, T-coded   |
| Number of positions  | 4  |
| Supply voltage       | 24 V DC  |
| Supply voltage range | 18 V DC ... 31.2 V DC (including all tolerances, including ripple) |
| Current consumption  | typ. 3 mA $\pm$ 15 % (at 24 V DC)<br>max. 12 A                     |

### Electrical isolation/isolation of the voltage ranges

# AXL E ETH DI16 M12 6P - Digital module



2701533

<https://www.phoenixcontact.com/us/products/2701533>

|  |                        |
|--|------------------------|
| Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/bus connection (Ethernet 1)   | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/bus connection (Ethernet 2)   | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/FE                            | 500 V AC, 50 Hz, 1 min |
| Test voltage: Bus connection (Ethernet 1)/FE   | 500 V AC, 50 Hz, 1 min |
| Test voltage: Bus connection (Ethernet 2)/FE   | 500 V AC, 50 Hz, 1 min |
| Test voltage: Bus connection (Ethernet 1)/bus connection (Ethernet 2)  | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (actuator supply)/24 V supply (communications power and sensor supply, digital inputs) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (actuator supply)/bus connection (Ethernet 1)  | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (actuator supply)/bus connection (Ethernet 2)  | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (actuator supply)/FE   | 500 V AC, 50 Hz, 1 min |

## Connection data

|                   |               |
|-------------------|---------------|
| Connection method | M12 connector |
|-------------------|---------------|

## Environmental and real-life conditions

### Ambient conditions

|  |   |
|--|---|
| Ambient temperature (operation)          | -25 °C ... 60 °C                                  |
| Degree of protection                     | IP65/IP67   |
| 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) |
| Ambient temperature (storage/transport)  | -25 °C ... 85 °C                                  |
| Permissible humidity (operation)         | 5 % ... 95 %                                      |
| Permissible humidity (storage/transport) | 5 % ... 95 %                                      |

## Standards and regulations

|                  |                                       |
|------------------|---------------------------------------|
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|

## Mounting

|               |                |
|---------------|----------------|
| Mounting type | Panel mounting |
|---------------|----------------|

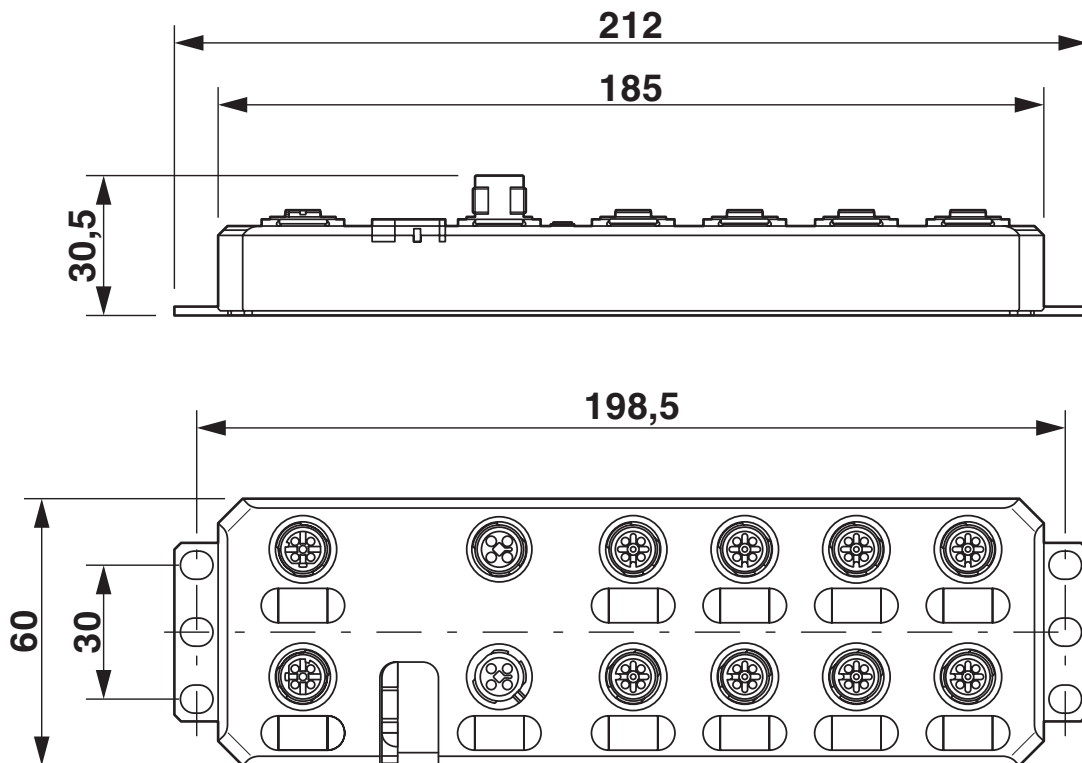
# AXL E ETH DI16 M12 6P - Digital module

2701533

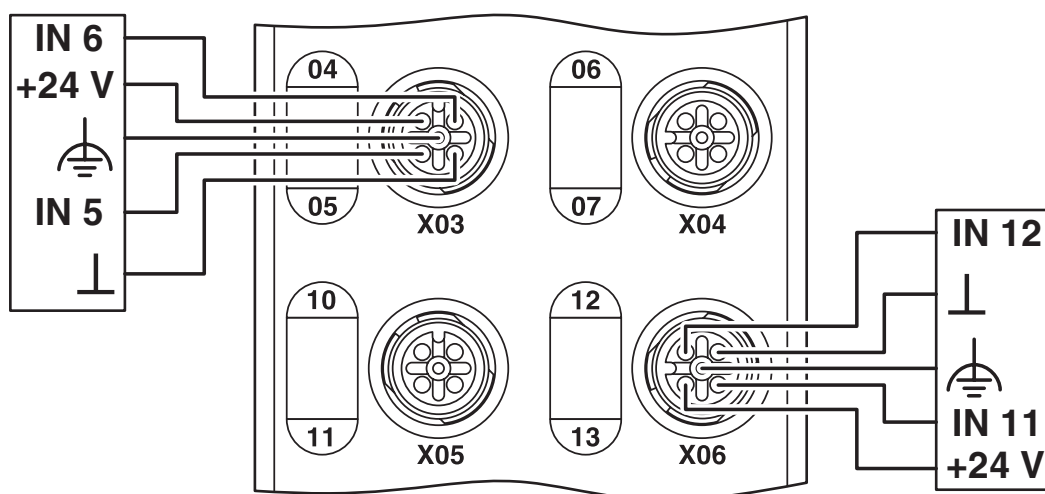
<https://www.phoenixcontact.com/us/products/2701533>

## Drawings

Dimensional drawing



Connection diagram



# AXL E ETH DI16 M12 6P - Digital module



2701533

<https://www.phoenixcontact.com/us/products/2701533>

## Classifications

### ECLASS

ECLASS-13.0

27242604

### ETIM

ETIM 9.0

EC001599

### UNSPSC

UNSPSC 21.0

32151600

2701533

<https://www.phoenixcontact.com/us/products/2701533>

## Environmental product compliance

### EU RoHS

|   |      |
|---|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-25   |
|  | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | be4390b7-ca36-41c2-9567-610a4b1efd4f |

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)