

# AXL E IOL DI8 M12 3M - Digital module



1480996

<https://www.phoenixcontact.com/us/products/1480996>

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Axioline E, Digital input device, IO-Link ports Class A: 1, connection method: M12 connector, A-coded, connection technology: 3-conductor, Digital inputs: 8, 24 V DC, connection technology: 4-conductor, IO-Link, degree of protection: IP65/IP67/IP69

## Product description

You can connect this Axioline E device to an IO-Link master via an IO-Link A port. You can use this device to acquire digital signals via IO-Link. Use within different networks is possible via the IO-Link master.

## Your advantages

- Connection to an IO-Link master with M12 connector (A-coded, 4-pos.)
- Type A port
- IO-Link specification V1.1.3
- Connection of up to 8 inputs with M12 connectors (A-coded, 5-pos.)
- Diagnostic and status indicators
- Single-channel diagnostics
- Short-circuit and overload protection of the sensor supply
- Device rating plate stored
- IP65/IP67/IP69 degree of protection

## Commercial data

Item number	1480996
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR04
Product key	DRI7MF
GTIN	4063151900403
Weight per piece (including packing)	293.7 g
Weight per piece (excluding packing)	279 g
Customs tariff number	85176200
Country of origin	DE

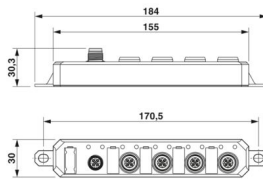
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## Technical data

### Dimensions

Dimensional drawing	
Width	30 mm
Height	184 mm
Depth	30.3 mm

### Notes

#### Note on application

Note on application	Only for industrial use
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### Material specifications

Color (Housing)	zinc color
Housing material	Die-cast zinc

### Input data

#### Digital:

Input name	Digital inputs
Description of the input	IEC 61131-2 types 1 and 3
Number of inputs	8
Cable length	max. 30 m (to the sensor)
Connection method	M12 connector, A-coded
Note on the connection method	Push-pull fast connection according to IEC 61076-2-010 or screw connection according to IEC 61076-2-101
Connection technology	4-conductor
Input voltage range "0" signal	-3 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. 2.5 mA
Input filter time	1 ms
Protective circuit	Reverse polarity protection; yes Short-circuit protection; yes Overload protection; yes

#### IO-Link

Number of ports	1
Connection method	M12 connector, A-coded

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Note on the connection method	Push-pull fast connection according to IEC 61076-2-010 or screw connection according to IEC 61076-2-101
Connection technology	3-conductor
Port type	Class A
Specification	V1.1.3
Reverse polarity protection	yes
Transmission speed	230.4 kbps (COM3)
Cycle Time	1 ms
Amount of process data	2 Byte (Input data) 0 Byte (Output data)

## Product properties

Product type	I/O component
Product family	Axioline E
Type	Stand-alone
Special properties	IO-Link

## Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

## Electrical properties

### Supply: IO-Link

Designation	IO-Link port supply (L+)
Nominal voltage for I/O supply	24 V DC (Provided via the IO-Link interface of the IO-Link master.)
Supply voltage range	18 V DC ... 30 V DC (including all tolerances, including ripple)
Nominal current per device	typ. 30 mA
Current consumption	max. 800 mA (device dependent; observe the current of the IO-Link master that is made available via L+)
Protective circuit	Reverse polarity protection; yes

### Supply: Sensors

Designation	Supply of the sensors (from L+)
Current consumption	max. 800 mA (per port) max. 800 mA (device dependent; observe the current of the IO-Link master that is made available via L+)

## Electrical isolation/isolation of the voltage ranges

Test voltage: 24 V supply L+ (IO-Link)/functional ground	500 V AC, 50 Hz, 1 min
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## Connection data

Connection method	M12 connector
Tightening torque	0.4 Nm

## Environmental and real-life conditions

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## Ambient conditions

Ambient temperature (operation)	-25 °C ... 70 °C
Degree of protection	IP65/IP67/IP69 IK08 (Impact resistance level)
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 %

## Mechanical test

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g
Continuous shock in accordance with EN 60068-2-27/IEC 60068-2-27	10g

## Test (noxious gas)

Test standard	IEC 60068-2-60:2015 Method 4
Temperature	25 °C ±1 K
Humidity (relative)	75 % ±3 %
Test duration	14 Days
Volume concentration H <sub>2</sub> S (Hydrogen sulfide)	10 ppb ±5 ppb
Volume concentration NO <sub>2</sub> (Nitrogen dioxide)	200 ppb ±20 ppb
Volume concentration Cl <sub>2</sub> (Chlorine)	10 ppb ±5 ppb
Volume concentration SO <sub>2</sub> (Sulfur dioxide)	200 ppb ±20 ppb

## Test (Salt spray)

Test standard	DIN EN 60068-2-52
Number of cycles	4
Test steps per cycle	2
Test duration (Total)	168 h
Test step (Salt mist)	2 h with 5 % ±0.5 % NaCl, pH value 6.5...7.2 for 35 °C ±2 K
Test step (Humidity)	166 h with 93 % ±3 % Humidity for 40 °C ±2 K

## Standards and regulations

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

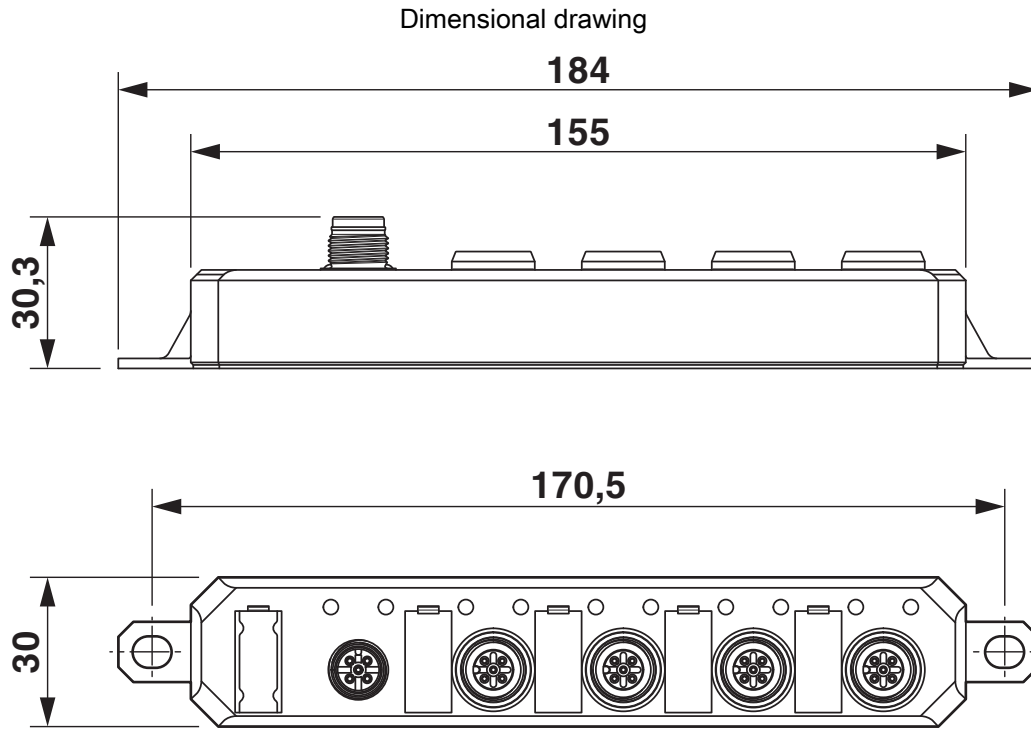
Mounting type	Screw mounting
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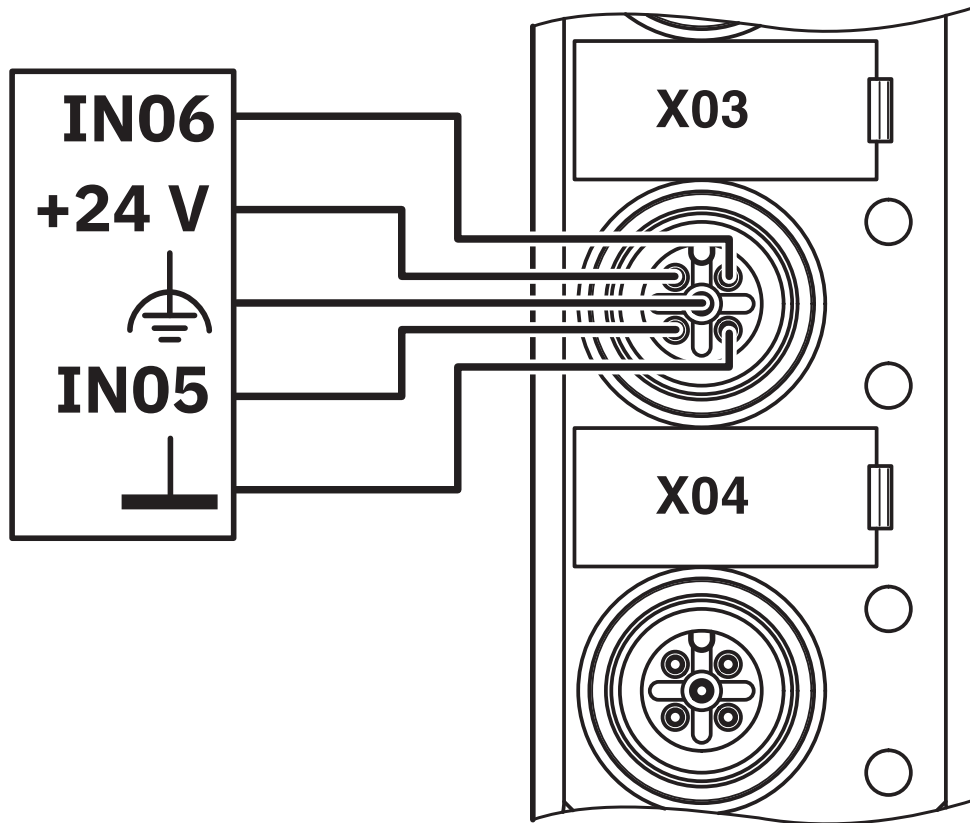
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## Drawings



Dimensions (in mm)

Connection diagram



Connection example

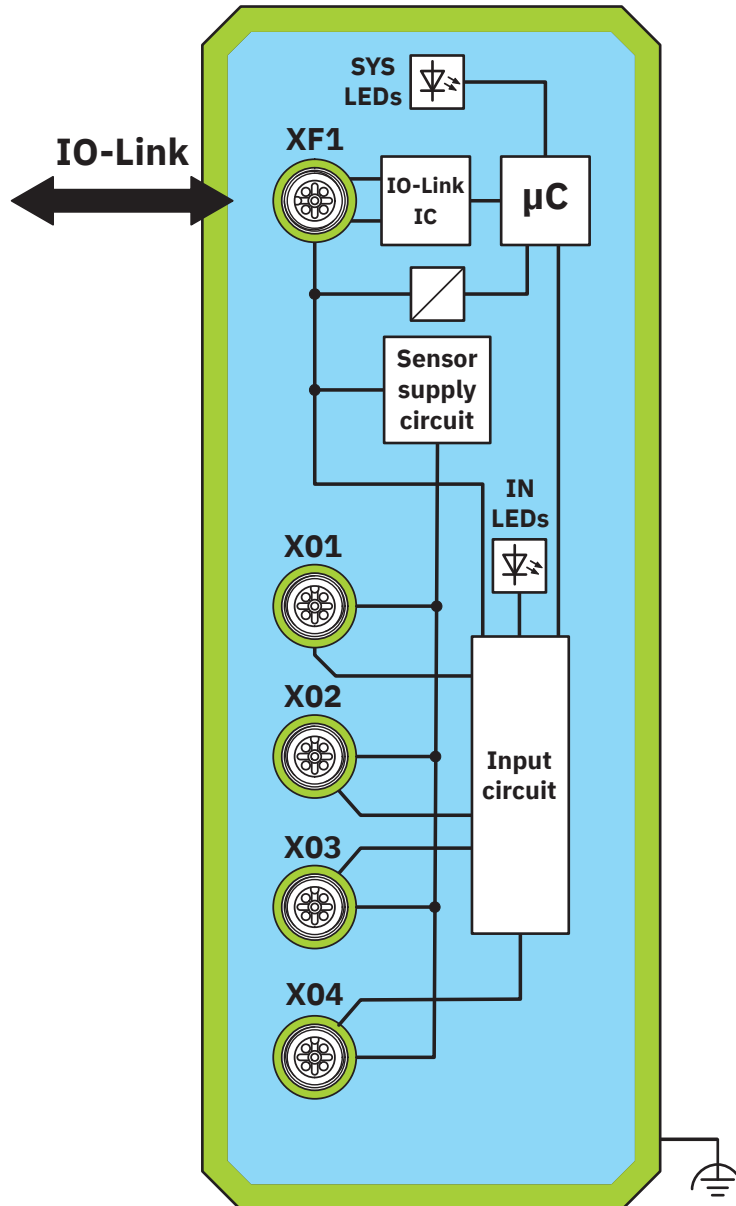
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Block diagram



Basic circuit diagram

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## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

### ETIM

ETIM 10.0	EC001599
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	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)
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)