

Digital module - AXL E IOL DI8 DO4/4 EF M12 6M



1293246

<https://www.phoenixcontact.com/us/products/1293246>

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Axioline E, Digital I/O 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, Digital outputs: 8, 24 V DC, 2 A, connection technology: 3-conductor, IO-Link, with safe signal path, degree of protection: IP65/IP67

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 and output digital signals via IO-Link. Use within different networks is possible via the IO-Link master. When using a safety relay module to shut down the supply voltage for the output groups, you can shut down the outputs in a safety-related way. The outputs are then switched to the power off state independently of the control signal.

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.)
- Connection up to 8 outputs with M12 connectors (A-coded, 5-pos.)
- Passive safe outputs up to SIL 3 in accordance with IEC 61508, up to Cat. 4/PL e in accordance with EN ISO 13894-1
- Connection of actuator supply U_{A1} and U_{A2} with M12 connector (L-coded, 4-pos.)
- Diagnostic and status indicators
- Single-channel diagnostics
- Short-circuit and overload protection of the sensor supply
- Device rating plate stored
- IP65/IP67 degree of protection

Commercial Data

Item number	1293246
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DRI7NF
GTIN	4063151525699

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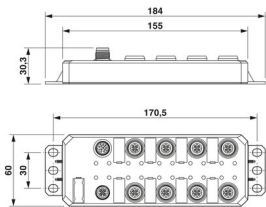


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Technical Data

Dimensions

Dimensional drawing	
Width	60 mm
Height	184 mm
Depth	30.3 mm

Material specifications

Housing material	Zinc die-cast
Color	gray

System properties

IO-Link

Amount of process data	3 Byte (Input data)
	1 Byte (Output data)

Input data

Digital

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Number of inputs	8
Cable length	max. 30 m (to the sensor)
Connection method	M12 connector (A-coded)
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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Connection technology	3-conductor
Port type	Class A

Output data

Digital

Output name	Digital outputs
Connection method	M12 connector (A-coded)
Connection technology	3-conductor
Number of outputs	8
Protective circuit	Overload protection; yes Short-circuit protection; yes
Output voltage	24 V DC
Output current	max. 2 A (per output)
Nominal output voltage	24 V DC (from U_{A1} , U_{A2})
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 μ A
Nominal load, inductive	48 VA (1.2 H, 12 Ω , at nominal voltage, utilization category DC-13)
Nominal load, ohmic	48 W (12 Ω , at nominal load)
Switching frequency	max. 1 per second (with inductive load)
Reverse voltage resistance to short pulses	no
Behavior with overload	Shutdown with automatic restart
Behavior with inductive overload	Output can be destroyed

Product properties

Type	Stand-Alone
Product type	I/O component

Insulation characteristics

Pollution degree	2 (IEC 60664-1, EN 60664-1)
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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.)
Nominal current per device	typ. 30 mA
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+.)

Supply: Actuators

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Designation	Supply of actuators (U _{A1} , U _{A2})
Connection method	M12 connector (L-coded)
Number of positions	4
Supply voltage	24 V DC (Nominal voltage)
Supply voltage range	18 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 8 A (Group U _{A1})
	max. 8 A (Group U _{A2})
	typ. 35 mA (Group U _{A1})
	typ. 35 mA (Group U _{A2})

Connection data

Connection method	M12 connector
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Ambient conditions

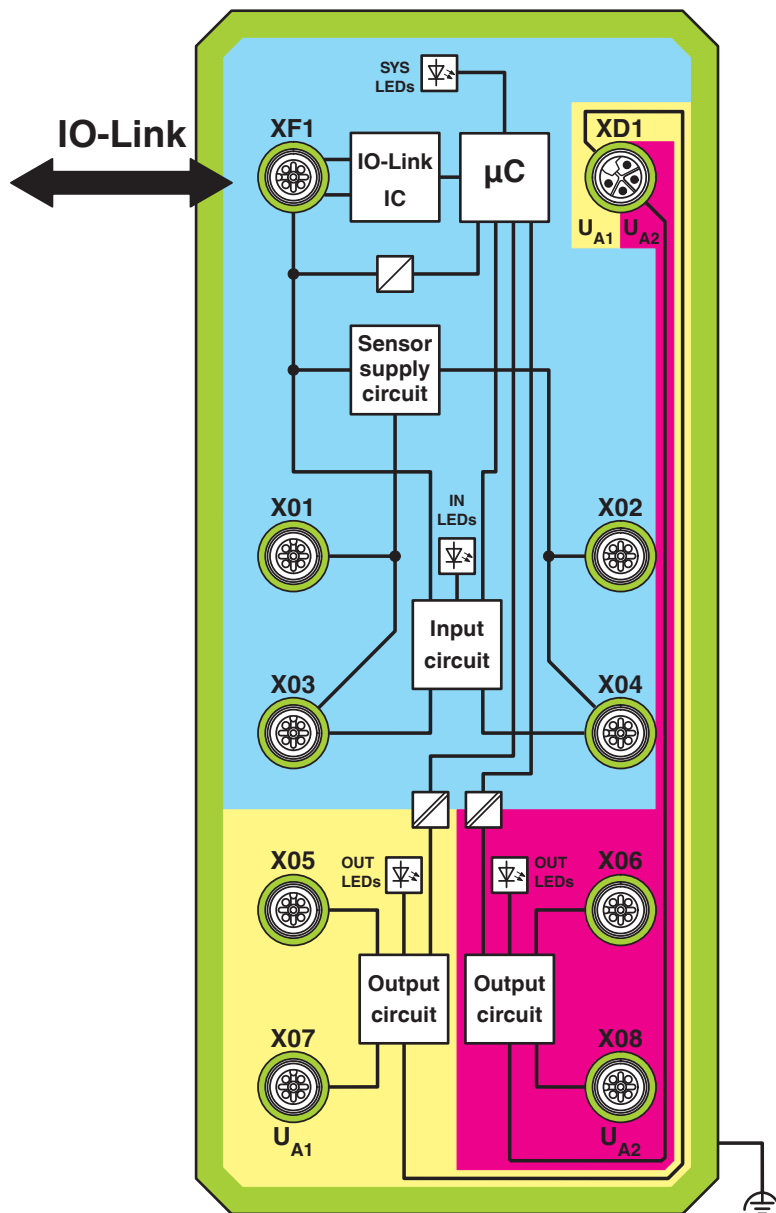
Ambient temperature (operation)	-25 °C ... 70 °C
Degree of protection	IP65/IP67
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

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

Block diagram



Basic circuit diagram

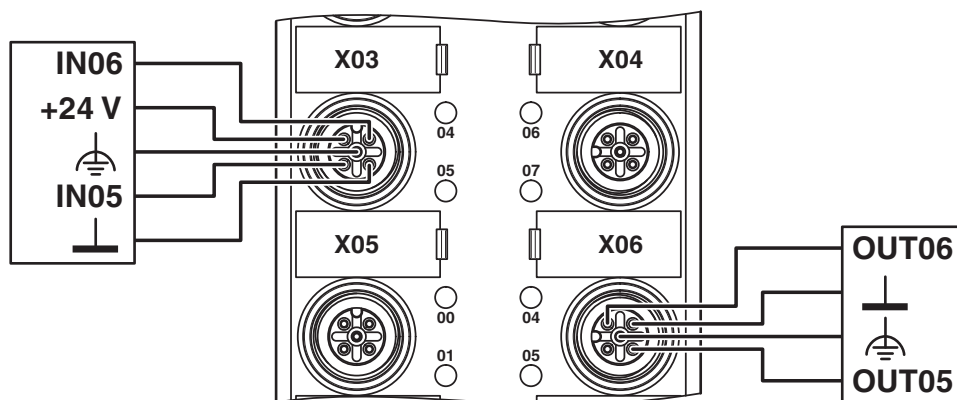
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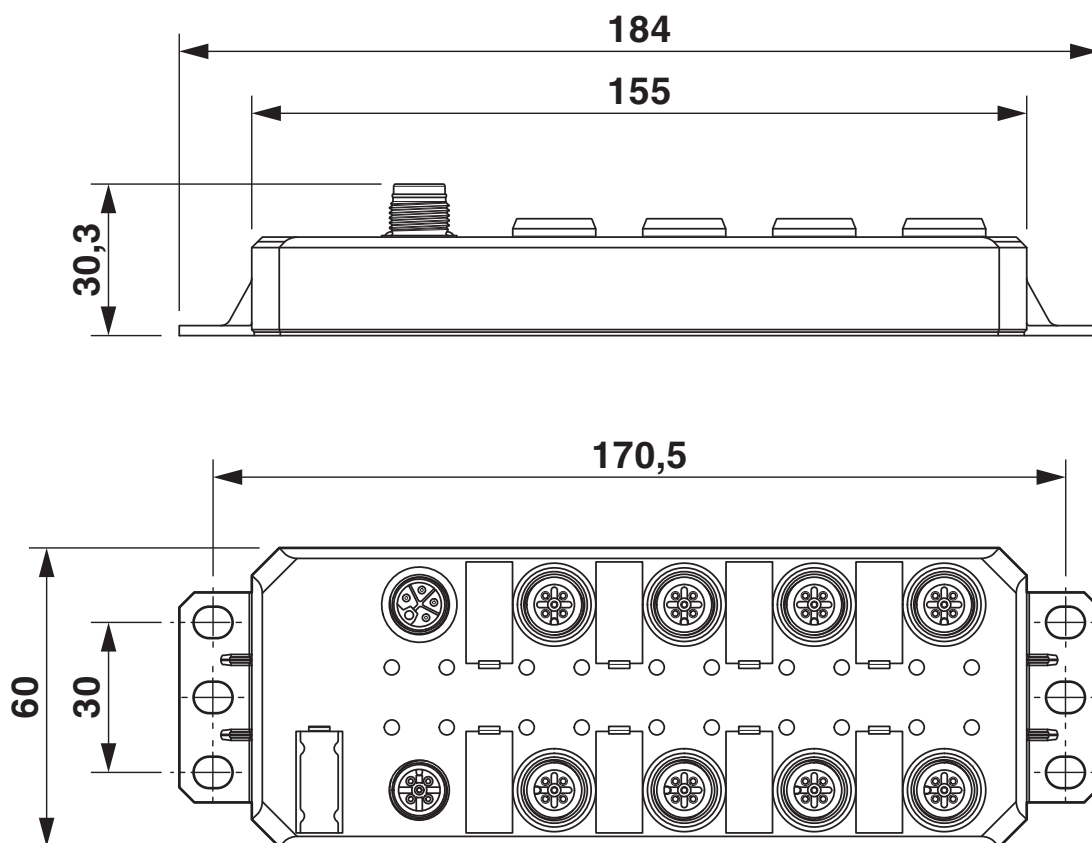
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Connection diagram



Connection example

Dimensional drawing



Dimensions (in mm)

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Classifications

ECLASS

ECLASS-9.0	27242604
ECLASS-10.0.1	27242604
ECLASS-11.0	27242604

ETIM

ETIM 8.0	EC001599
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UNSPSC

UNSPSC 21.0	32151600
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Accessories

Snap-in markers

Snap-in markers - UCT-EM (20X9) - 0801471

<https://www.phoenixcontact.com/us/products/0801471>



Snap-in markers, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, lettering field size: 20 x 9 mm, Number of individual labels: 24

Plastic label

Plastic label - US-EMLP-HA (20X9) - 0830989

<https://www.phoenixcontact.com/us/products/0830989>



Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 20 x 9 mm, Number of individual labels: 70

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Screw plug

Screw plug - PROT-M12 - 1680539

<https://www.phoenixcontact.com/us/products/1680539>



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

Screw plug

Screw plug - PROT-M12 SH - 1503302

<https://www.phoenixcontact.com/us/products/1503302>



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

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Y distributor

Y distributor - SAC-3P-Y/2XM 8FS SCO - 1523984

<https://www.phoenixcontact.com/us/products/1523984>



Y distributor, 4-position, Plug straight M12 SPEEDCON, coding: A, on Socket straight M8, coding: A and Socket straight M8, coding: A

Y distributor

Y distributor - SAC-3P-Y/2XFS PE SCO - 1523971

<https://www.phoenixcontact.com/us/products/1523971>



Y distributor, 4-position, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A and Socket straight M12 SPEEDCON, coding: A

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Y distributor

Y distributor - SAC-3P-Y/2XFS B PE SCO - 1523968

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Y distributor, 4-position, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, PIN 2+4 bridged and Socket straight M12 SPEEDCON, coding: A, PIN 2+4 bridged, Thread M12 socket not rotatable

Y distributor

Y distributor - SAC-5P-Y/2XFS VP SCO - 1546068

<https://www.phoenixcontact.com/us/products/1546068>



Y distributor, 5-position, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A and Socket straight M12 SPEEDCON, coding: A, Parallel distributor, Thread M12 socket not rotatable

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