

Safety module - AXL E IOL SDI8 SDO4 2A M12 L



1185380

<https://www.phoenixcontact.com/pc/products/1185380>

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Axioline E-safety module, 4 safe digital inputs for 2-channel assignment, 8 safe digital inputs for 1-channel assignment, 4 safe digital +/-switching outputs, IO-Link interface, IP65/IP67 degree of protection, for PROFI-safe systems

Product Description

The Axioline E Safe IP67 I/O box is the new addition to the Axioline E system.

The I/O box enables you to process safe inputs and outputs outside of the control cabinet and transfer them to the higher-level PROFI-safe controller.

To do this, the safety protocol is transmitted to the standard network via a Phoenix Contact IO-Link master and is then processed by the safety controller.

You can address the devices easily using the AXL E ADDRESSPLUG (100053), which is available as an accessory.

Your advantages

- Up to Cat. 4/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with IEC 62061, SIL 3 in accordance with IEC 61508
- Minimum installation effort with control-cabinet-free mounting
- Safe outputs with up to 2 A
- Long service life and high system availability with the robust design
- Connection of safe sensors and actuators directly at field level
- Easy device addressing with address plug

Commercial Data

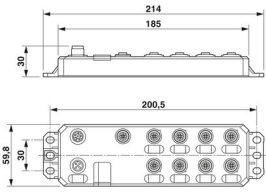
Item number	1185380
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DNA541
GTIN	4063151225278
Weight per Piece (including packing)	405 g
Weight per Piece (excluding packing)	372 g
Customs tariff number	85389091
Country of origin	DE

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Technical Data

Dimensions

Dimensional drawing	
Width	59.8 mm
Height	214 mm
Depth	30 mm
Note on dimensions	Specifications including fixing clips and connectors

Material specifications

Housing material	Plastic POCAN B4239 GF30 YE 1018
Color	yellow

System properties

IO-Link

Amount of process data	64 Bit (Input and output data)
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Input data

Digital

Input name	Safe digital inputs
Description of the input	IEC 61131-2 type 3
Number of inputs	4 (for 2-channel assignment) 8 (for 1-channel assignment)
Cable length	max. 200 m
Connection method	M12 connector (A-coded)
Connection technology	3-conductor
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30.2 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 3.7 mA (at 24 V DC) max. 4.3 mA (with 30.2 V DC)
Input filter time	1.5 ms 3 ms (Default) 5 ms 15 ms
Protective circuit	Overload protection, short-circuit protection of sensor supply

IO-Link

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Number of ports	1
Connection method	M12 connector, A-coded
Connection technology	3-conductor
Port type	Class A

Output data

Digital

Output name	Safe digital outputs
Connection method	M12 connector (A-coded)
Connection technology	2-conductor
Number of outputs	4 (for 2-channel assignment, +/- switching) 4 (for 1-channel assignment, + switching)
Protective circuit	Overload protection, short-circuit protection of outputs
Output voltage	$U_A - 1.4 \text{ V}$
Output current	max. 2 A (per channel) max. 2 A (per output) max. 6 A (Total current of all outputs; Please observe the notes in the user manual.)
Maximum output current per channel	2 A
Nominal output voltage	24 V DC (from voltage U_A)
Output voltage when switched off	< 5 V ((in the Low state))
Output current when switched off	2 mA (Leakage current in the Low state)
Delay time	max. 128 s (can be parameterized)
Permissible cable length	max. 50 m
Switching frequency	max. 1 Hz
Reverse voltage resistance to short pulses	no

Product properties

Type	Stand-Alone
Product type	I/O component
Mounting position	any
Application	Functional safety
Operating mode	Process data mode with 4 words

Insulation characteristics

Pollution degree	4
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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	approx. 15 mA
Protective circuit	Reverse polarity protection

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Permissible cable length	max. 20 m
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Supply: Module electronics and sensors

Designation	Supply of module electronics and sensors (U _S)
Connection method	M12 connector (L-coded)
Number of positions	2
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	67 mA (without sensors)

Supply: Actuators

Designation	Actuator supply (U _A)
Connection method	M12 connector (L-coded)
Number of positions	2
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	52 A (without actuators)

Connection data

Connection method	M12 connector
Note on the connection method	in accordance with IEC 61076-2-101, M12 connection technology

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (Mounting position: any)
Degree of protection	IP65/IP67 (in accordance with DIN EN 60529:1989 + A1:1999 + A2:2013)
Note	Resistant to gas that may endanger functions (sulfur dioxide (SO ₂), hydrogen sulfide (H ₂ S))
Air pressure (operation)	70 kPa ... 108 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (storage/transport)	75 % (non-condensing)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Air clearances and creepage distances

Air clearances and creepage distances	In accordance with IEC 60664-1
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

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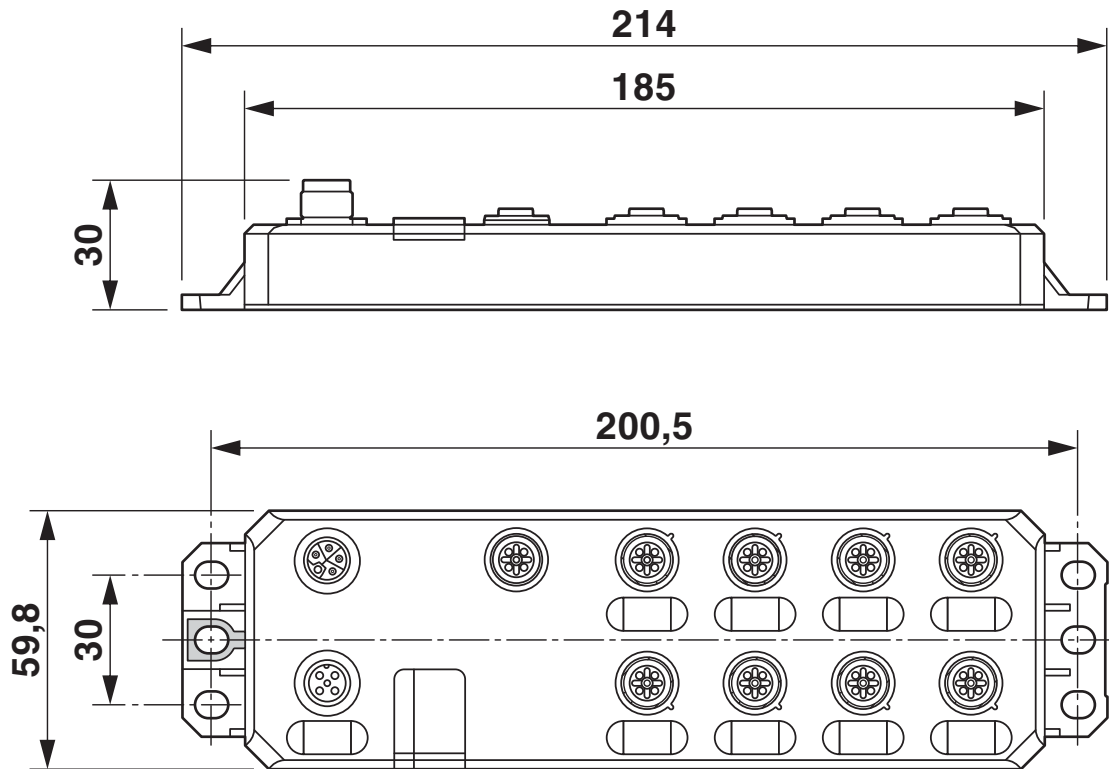


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Drawings

Dimensional drawing



Dimensions (in mm)

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Approvals



Functional Safety

Approval ID: 968/FSP 2196.00/22



UL Listed

Approval ID: FILE E 238705

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	125 V	1 A	-	-



cUL Listed

Approval ID: FILE E 238705

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	125 V	1 A	-	-



Functional Safety

Approval ID: 01/205/5820.00/22

cULus Listed

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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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Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

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Mandatory Accessories

Communication module

Communication module - AXL E PN IOL4/0 DIO8 M12 6M-L - 1300923

<https://www.phoenixcontact.com/pc/products/1300923>



Axioline E, IO-Link master and digital I/O device, PROFINET, M12 connector (D-coded), IO-Link ports Class A: 4, connection method: M12 connector (A-coded), connection technology: 3-conductor, Digital inputs at pin 2 for class A ports: 4, 24 V DC, connection technology: 3-conductor, Digital inputs: 8, 24 V DC, connection technology: 4-conductor, Digital outputs: 8, 24 V DC, 500 mA, connection technology: 3-conductor, degree of protection: IP65/IP67

Communication module

Communication module - AXL F IOL8 2H - 1027843

<https://www.phoenixcontact.com/pc/products/1027843>



Axioline F, IO-Link master, IO-Link ports Class A: 8, connection method: Push-in connection, connection technology: 3-conductor, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

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Communication module

Communication module - AXL SE IOL4 - 1088132

<https://www.phoenixcontact.com/pc/products/1088132>



Axioline Smart Elements, IO-Link master, IO-Link ports Class A: 4, connection method: Push-in connection, connection technology: 3-conductor, degree of protection: IP20

Accessories

Configuration memory

Configuration memory - AXL E ADDRESSPLUG - 1100053

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Replaceable address plug for the safety address



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Screw plug

Screw plug - PROT-M12 - 1680539

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



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

Snap-in markers

Snap-in markers - UCT-EM (7X10) - 0830765

<https://www.phoenixcontact.com/pc/products/0830765>



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: 7 x 10 mm, Number of individual labels: 30

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Y distributor

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

<https://www.phoenixcontact.com/pc/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

Y distributor

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

<https://www.phoenixcontact.com/pc/products/1523968>



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

Safety module - AXL E IOL SDI8 SDO4 2A M12 L



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Y distributor

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

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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

Power cable

Power cable - SAC-4P-10,0-105/M12FSL - 1425036

<https://www.phoenixcontact.com/pc/products/1425036>



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Socket straight M12, coding: L, on free cable end, cable length: 10 m, For direct current up to 12 A/63 V

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Power cable

Power cable - SAC-4P- 1,5-PUR/M12FSL - 1425073

<https://www.phoenixcontact.com/pc/products/1425073>



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Socket straight M12, coding: L, on free cable end, cable length: 1.5 m, for direct current up to 16 A/63 V

Power cable

Power cable - SAC-4P-M12FSL/.../... - 1276563

<https://www.phoenixcontact.com/pc/products/1276563>



Power cable, 4-position, Variable cable type, Socket straight M12, coding: L, on free cable end, cable length: Free input (0.2 ... 40.0 m), for direct current up to 16 A/63 V

Safety module - AXL E IOL SDI8 SDO4 2A M12 L



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Sensor/actuator cable

Sensor/actuator cable - SAC-5P-M12MS/3,0-PUR/M12FS - 1681619

<https://www.phoenixcontact.com/pc/products/1681619>

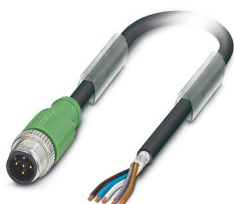


Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 3 m

Sensor/actuator cable

Sensor/actuator cable - SAC-5P-M12MS/ 5,0-PUR SH - 1682731

<https://www.phoenixcontact.com/pc/products/1682731>



Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12, coding: A, on free cable end, cable length: 5 m

Safety module - AXL E IOL SDI8 SDO4 2A M12 L



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Sensor/actuator cable

Sensor/actuator cable - SAC-5P-M12MS-M12FS SH/.../... - 1536120

<https://www.phoenixcontact.com/pc/products/1536120>



Sensor/actuator cable, 5-position, Variable cable type, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: Free input (0.2 .. 40.0 m)

Plastic label

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

<https://www.phoenixcontact.com/pc/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 SH - 1503302

<https://www.phoenixcontact.com/pc/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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