

AXL SE IOL4 - Communication module



1088132

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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

Product description

You can integrate Axioline Smart Elements into systems with the Smart Element interface. The IO-Link master enables the operation of up to four IO-Link devices. Alternatively, you can connect a standard digital sensor or actuator to each port.

Your advantages

- Connection of 4 IO-Link devices
- Alternatively: connection of one digital sensor or actuator per port
- Connection of IO-Link devices in 3-conductor technology
- Connection of sensors in 3-conductor technology
- Connection of actuators in 2- and 3-conductor technology
- Parameter data storage on the master
- IO-Link specification V1.1.2
- Substitute value behavior of inputs and outputs can be parameterized for each port
- IOL-CONF supported
- Device rating plate stored

Commercial data

Item number	1088132
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR05
Product key	DRIB53
GTIN	4055626887470
Weight per piece (including packing)	40 g
Weight per piece (excluding packing)	37 g
Customs tariff number	85389091
Country of origin	DE

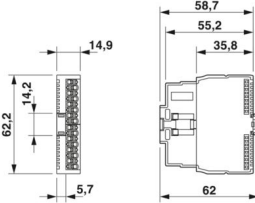
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Technical data

Dimensions

Dimensional drawing	
Width	14.9 mm
Height	62.2 mm
Depth	62 mm

Interfaces

Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.
Start time until ready to operate	< 500 ms

System properties

Module

ID code (hex)	none
Process data channel	512 bit
Input address area	64 Byte
Output address area	64 Byte

Input data

Digital

Description of the input	IO-Link ports in digital input (DI) mode
Number of inputs	max. 4 (EN 61131-2 type 1)
Connection method	Push-in connection
Connection technology	3-conductor
Nominal input voltage U_{IN}	24 V DC
Input voltage range "0" signal	-0.3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input current	typ. 2.5 mA
Sensor current per channel	max. 500 mA (from L+/L-)
Input filter time	1 μ s

IO-Link

Number of ports	4
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Connection method	Push-in connection
Connection technology	3-conductor
Port type	Class A

Output data

Digital

Output description	IO-Link ports in digital output (DO) mode
Connection method	Push-in connection
Connection technology	2-, 3-conductor
Number of outputs	max. 4
Nominal output voltage	24 V DC
Nominal current per channel	200 mA

Product properties

Type	modular
Product type	I/O component
Product family	Axioline Smart Elements
Mounting position	See the system in which the Smart Element is used.

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

Nominal voltage for I/O supply	24 V DC
Supply voltage range	18 V DC ... 30 V DC (including all tolerances, including ripple)
Nominal current for every IO-Link port	500 mA (at L+/L-) 200 mA (at C/Q)
Protective circuit	Overload protection for L+; electronically limited to 0.6 A Short-circuit protection for L+; by switching off after 55 ms

Potentials: Communications power supply of the Smart Elements (U_{SE})

Supply voltage	using card edge connectors
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Potentials: I/O supply (U_P) incl. IO-Link port supply

Supply voltage	24 V DC (using card edge connectors)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 2030 mA (Internal current consumption + full load of the 4 IO-Link ports (4 x 500 mA)) typ. 2020 mA
Current consumption	min. 18 mA (without connected peripherals)
Power consumption	max. 61 W (of which 1.45 W internal losses) min. 432 mW

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Protective circuit	Surge protection; See the system in which the Smart Element is used.
	Reverse polarity protection; Polarity protection diode
Electrical isolation/isolation of the voltage ranges	
Test voltage: Communications supply / 24 V supply (I/O)	500 V AC, 50 Hz, 1 min.
Test voltage: Communications supply / functional ground	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min.

Connection data

Connection technology

Connection name	I/O
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.

Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.25 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

I/O

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.
Conductor cross section, rigid	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible	0.25 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
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)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

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Standards and regulations

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

Mounting type	Smart Element slot
Mounting position	See the system in which the Smart Element is used.

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Classifications

ECLASS

ECLASS-11.0	27242608
ECLASS-12.0	27242608
ECLASS-13.0	27242608

ETIM

ETIM 9.0	EC001604
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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