

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

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 IO-Link/analog converter with 4 analog TC inputs (type K/J), 2-conductor connection technology, 1 IO-Link A port, 24 V DC, IP65 degree of protection

Product description

The Axioline E IO-Link/analog converter is an IO-Link device that transfers analog signals from thermocouples (TCs) via the IO-Link protocol. The device offers you the option of using an IO-Link master to record the analog signals of conventional type K/J thermocouples (TC). It supports type K/J thermocouples in accordance with DIN EN 60584-1. The measured values are depicted in standardized representation format. The device is connected to an IO-Link master via an IO-Link A port. 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.)
- IO-Link A port
- IO-Link specification V1.1.2
- Status indicators
- 4 differential inputs for thermocouples
- Measuring range type K: -270°C ... +1,372°C
- Measuring range type J: -210 °C ... +1200 °C
- Selectable resolution 0.1 K/0.01 K
- Connection of sensors in 2-conductor technology
- M12 cable gland, Push-in Technology
- Diagnostic information in the process data word
- Supply of the module electronics via the IO-Link interface of the master
- Degree of protection IP65

Commercial data

Item number	2702983
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR04
Product key	DRI7Z5
Catalog page	Page 181 (C-6-2019)
GTIN	4055626447261
Weight per piece (including packing)	384.3 g
Weight per piece (excluding packing)	384.3 g
Customs tariff number	85176200

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Country of origin	DE
-------------------	----

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Technical data

Notes

Note on application

Note on application	Only for industrial use
---------------------	-------------------------

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Interface converter
Product family	Axioline E
Type	Stand-Alone
Special properties	Plastic housing

Data management status

Article revision	04
------------------	----

Insulation characteristics

Pollution degree	2 (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	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Nominal current per device	typ. 35 mA ($\pm 15\%$ (at 24 V DC), max. 70 mA)
Protective circuit	Reverse polarity protection; yes
	Short-circuit protection; yes
	Overload protection; yes

Electrical isolation/isolation of the voltage ranges

Test voltage: IO-Link bus logic	500 V AC, 50 Hz, 1 min.
Test voltage: Thermocouple I/O devices	500 V AC, 50 Hz, 1 min.
Test voltage: Functional ground	500 V AC, 50 Hz, 1 min.

Input data

IO-Link

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

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Specification	V1.1.2
Reverse polarity protection	yes
Transmission speed	230.4 kbps (COM3)
Process data update	< 310 ms
Amount of process data	64 bit (4x 16-bit input data)

Analog

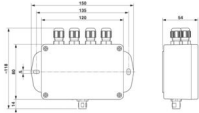
Input name	Analog TC inputs
Description of the input	Differential inputs
Number of inputs	4
Connection method	Push-in technology
Connection technology	2-conductor
A/D conversion time	typ. 40 ms
A/D converter resolution	24 bit
Sensor types that can be used (TC)	K/J
Measuring principle	Sigma/Delta process
Measured value representation	16 bits
Protective circuit	Transient protection of inputs
	Overload protection
	Wire-break detection

Connection data

Thermocouples

Connection method	Push-in technology
Conductor cross section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

Dimensions

Dimensional drawing	
Width	150 mm
Height	54 mm
Depth	118 mm
Note on dimensions	When installing, note the length of the M12 connector for the IO-Link cable and the bending radii of the TC cables.

Material specifications

Color	light grey RAL 7035
Housing material	Polycarbonate

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP65 (not UL-tested)
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)
------------------	---------------------------------------

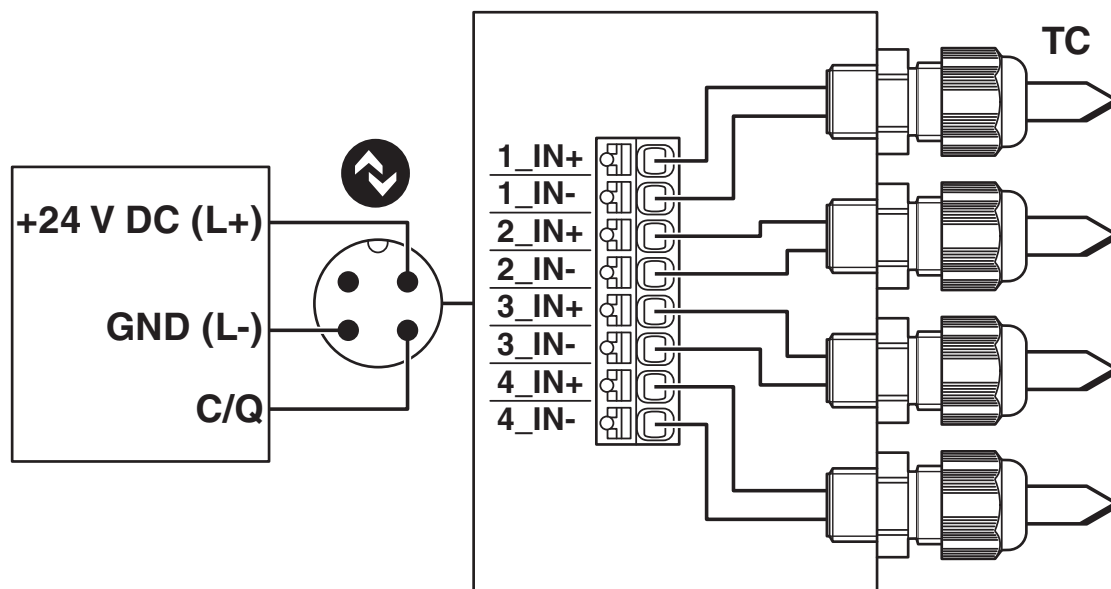
AXL E IOL TC4/K M12 - Analog module

2702983

<https://www.phoenixcontact.com/us/products/2702983>

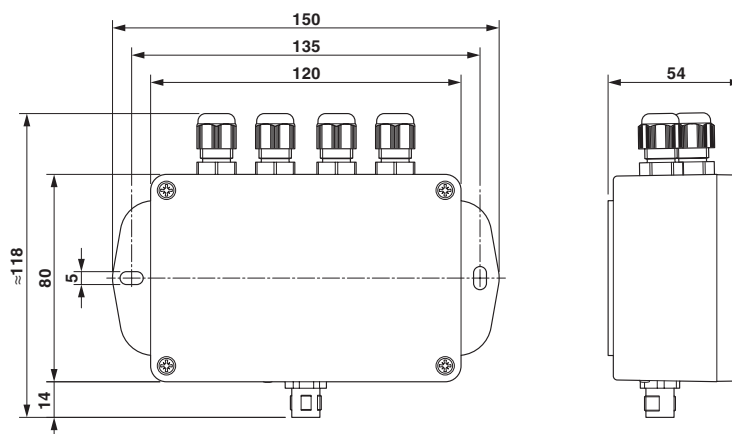
Drawings

Connection diagram



Connection example

Dimensional drawing



Dimensions (in mm)

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702983>



cULus Listed

Approval ID: E238705

AXL E IOL TC4/K M12 - Analog module



2702983

<https://www.phoenixcontact.com/us/products/2702983>

Classifications

ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	27242601

ETIM

ETIM 8.0	EC001596
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 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)
SCIP	26d555e4-3514-41b0-9dde-cd8953e32142

AXL E IOL TC4/K M12 - Analog module

2702983

<https://www.phoenixcontact.com/us/products/2702983>



Accessories

SEALING PLUG 5X12 RD - Sealing plug

1400253

<https://www.phoenixcontact.com/us/products/1400253>

Sealing plug, color: red



IOL-CONF - Configuration and diagnostic software

1083065

<https://www.phoenixcontact.com/us/products/1083065>



IOL-CONF is a browser-based configuration software tool for the easy startup of IO-Link masters and IO-Link devices

Phoenix Contact 2024 © - 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