

Inline terminal - IB IL AI 2/SF-XC-PAC - 2701157

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Inline XC, Analog input terminal, Analog inputs: 2, 0 V ... 10 V, -10 V ... 10 V, 0 mA ... 20 mA, 4 mA ... 20 mA, -20 mA ... 20 mA, connection method: 2-wire, transmission speed in the local bus: 500 kbps, Extreme conditions version, degree of protection: IP20, including Inline connector and labeling field

The figure shows the standard item

Product Description

The terminal is designed for use within an Inline station. It is used to acquire analog voltage and current signals.

Your advantages

- 2 analog single-ended signal inputs for the connection of either voltage or current signals
- Connection of sensors in 2-wire technology
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA, ±20 mA
- Voltage ranges: 0 V ... 10 V, ±10 V
- Channels are parameterized independently of one another via the bus system
- Measured values can be represented in four different formats
- Resolution depends on the representation format and the measuring range
- Process data update of both channels within a max. of 1.5 ms
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Coated PCBs



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356713832

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Technical data

Dimensions

Width	12.2 mm
Height	136.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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)
Degree of protection	IP20

General

Mounting type	DIN rail
Color	green
Net weight	69 g
Note on weight specifications	with connector
Operating mode	Process data operation with 2 words
Diagnostics messages	Failure of the internal I/O supply Yes
	I/O error Error message in the process data
	User error Error message in the process data

Interfaces

Designation	Inline local bus
No. of channels	2
Connection method	Inline data jumper
Transmission speed	500 kbps

Inline potentials

Designation	Communications power (U_L)
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 45 mA
	max. 60 mA
Designation	Supply of analog modules (U_{ANA})
Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	typ. 13 mA
	max. 18 mA
Power consumption	typ. 662 mW

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Technical data

Analog inputs

Description of the input	Single-ended inputs, voltage or current
Input name	Analog inputs
Number of inputs	2
Connection method	Inline shield connector
Connection technology	2-wire
Note regarding the connection technology	shielded
A/D conversion time	typ. 120 µs (per channel)
Limit frequency (3 dB)	40 Hz
Type of protection	Surge protection
Data formats	IB IL, IB ST, IB RT, standardized representation
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign bit)
Measured value representation	16 bit two's complement
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Input resistance current input	50 Ω (Shunt)
Voltage input signal	0 V ... 10 V
	-10 V ... 10 V
Input resistance of voltage input	> 220 kΩ
Common mode voltage range signal - ground	40 V (Between current input and functional ground)

Electrical isolation

Test section	7.5 V supply (bus logic), 24 V supply U_{ANA} / I/O 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logic), 24 V supply U_{ANA} / functional ground 500 V AC 50 Hz 1 min.
	I/O/functional ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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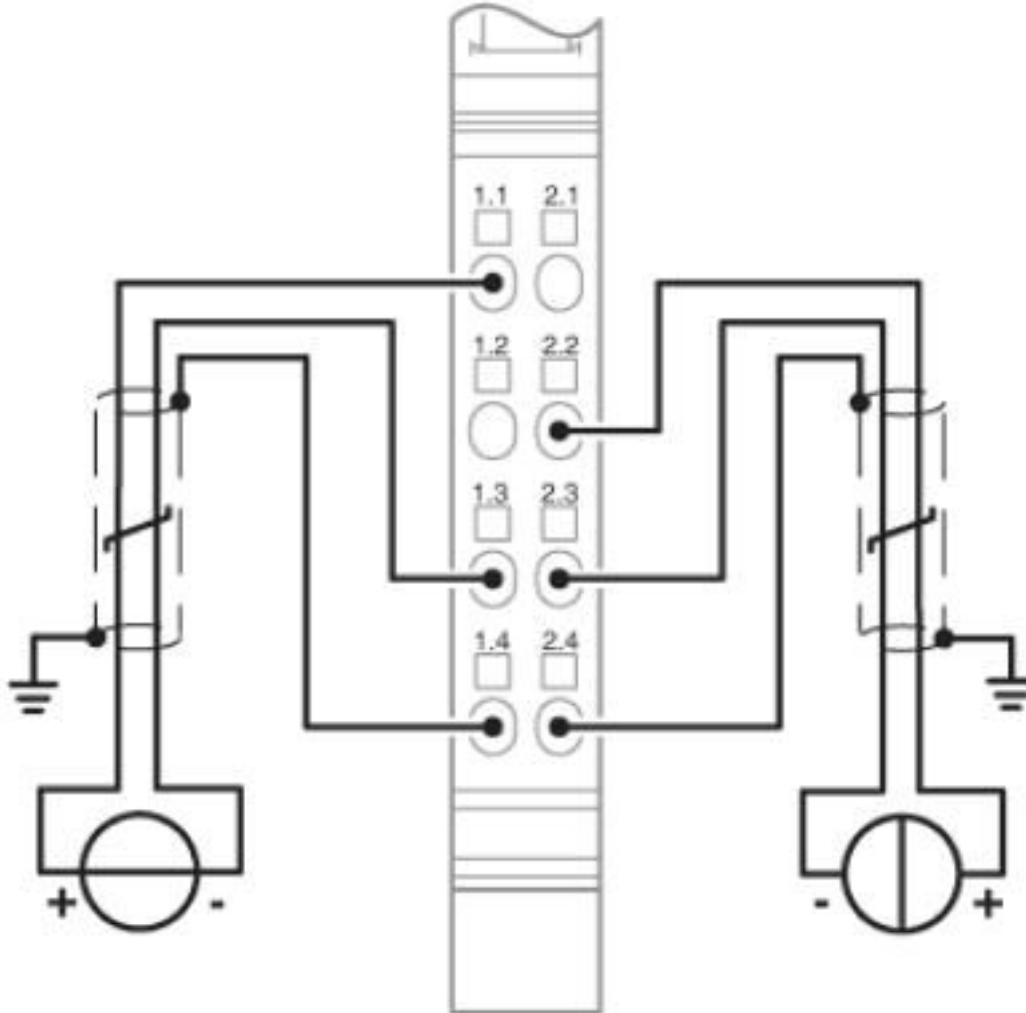
Drawings

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Block diagram

Connection diagram

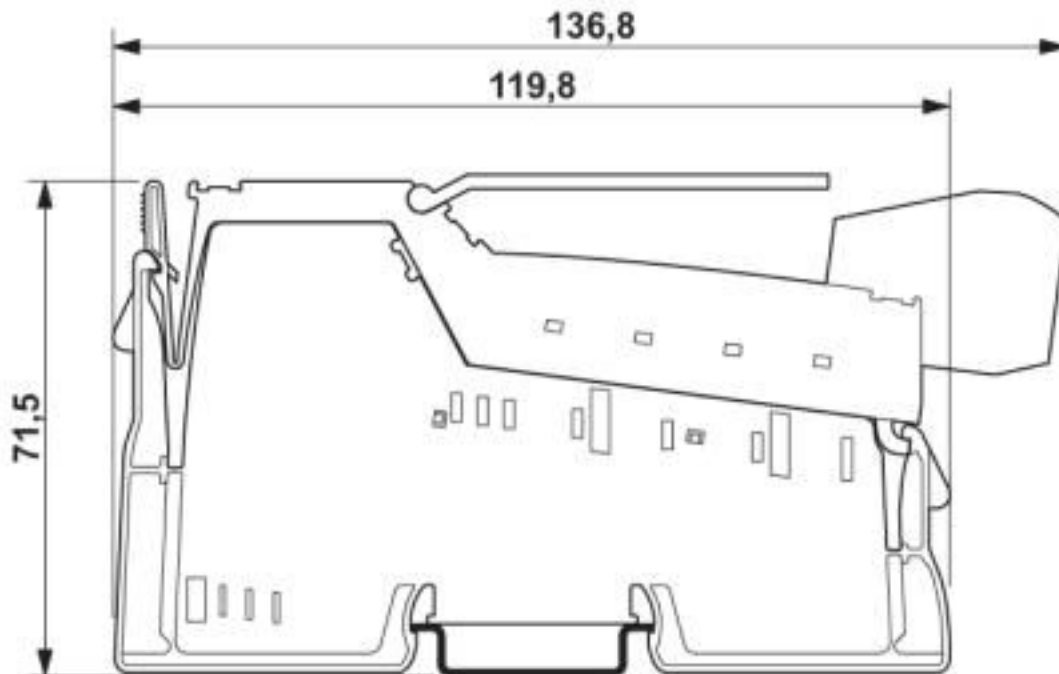
Internal wiring of the terminal points



Connection example

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Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242601
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC001599
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015

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Classifications

UNSPSC

UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

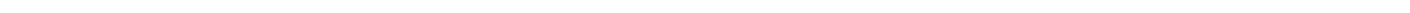


Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized



Ex Approvals



Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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EAC		EAC-Zulassung
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cULus Recognized	
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Accessories

Accessories

Labeling panel

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Accessories

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Plug

Inline shield connector - IB IL SCN 6-SHIELD-TWIN - 2740245



Inline shield connector

Inline shield connector - IB IL SCN-6 SHIELD - 2726353



Inline shield connector

Terminal marking

Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72



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