Inline terminal - IB IL AI 8/SF-XC-PAC - 2701159

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Inline analog input terminal, version for extreme conditions, complete with accessories (connector and labeling field), 8 inputs, 0 - 20 mA, 4 - 20 mA, ±20 mA, 0 - 10 V, ±10 V, (additionally 0 - 40 mA, ±40 mA, 0 - 5 V, ±5 V, 0 - 25 V, ±25 V, 0 - 50 V), 2-conductor connection technology

Product Description

The analog Inline input terminals are suited for connecting conventional sensors for the acquisition of current and voltage signals.
Particular features of the modules are:
- High accuracy of measurement
- Extremely rapid acquisition of measurement values
- Excellent noise suppression and common mode rejection, and
- Measurement value acquisition with a resolution of 16 bits

It goes without saying that you also have advantages in handling with the analog Inline input terminals, such as multi-wire connection or the automatic contact with the grounding conductor when the terminal is snapped onto the DIN rail.
The Inline terminals can be labeled using hinged labeling fields. The fields have insert cards that can be labeled individually to suit the application. Additionally, there is the proven ZBFM-6... Zack strip for labeling the terminal points.

Product Features

- High measuring accuracy
- Excellent interference suppression and common mode rejection
- Integrated short-circuit-proof sensor supply
- Overload-protected current inputs
- 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
Weight per Piece (excluding packing)	260.0 g
Custom tariff number	85389091
Country of origin	Germany

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Technical data

Note

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

Dimensions

Width	48.8 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 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)
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
Net weight	213 g
Note on weight specifications	with connectors

Interfaces

Fieldbus system	Lokalbus
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/s
Transmission physics	Copper

Inline potentials

Communications power U_L	7.5 V DC (via voltage jumper)
Current consumption from U_L	max. 55 mA
	typ. 48 mA
I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	max. 35 mA
	typ. 24 mA

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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	8
Connection method	2-wire (shielded)
A/D conversion time	approx. 10 µs
Resolution A/D	16 bit
Limit frequency (3 dB)	3.5 kHz
Data formats	IL, IB ST, IB RT, standardized representation, PIO format
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
	0 mA ... 40 mA
	-40 mA ... 40 mA
Input resistance current input	25 Ω 0.01 %
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
	0 V ... 25 V
	-25 V ... 25 V
	0 V ... 50 V
Input resistance of voltage input	> 240 kΩ 0.01 %

Standards and Regulations

Test section	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	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 earth ground 500 V AC 50 Hz 1 min.
	I/O / functional earth ground 500 V AC 50 Hz 1 min.
Connection in acc. with standard	CUL
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

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Classifications

eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242601
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC001599
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

UL Recognized

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Approvals

cUL Recognized

cULus Recognized

Accessories

Accessories

Labeling panel

Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm

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

Terminal marking

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Accessories

Insert strip - ESL 62X46 - 0809502

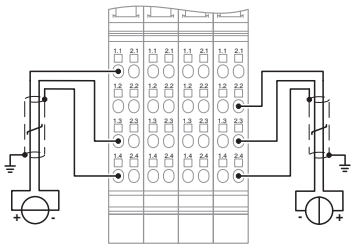
Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 46 mm

Insert strip - ESL 62X10 - 0809492

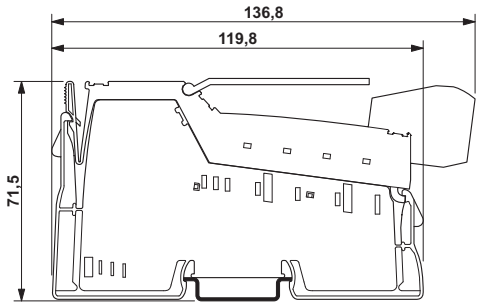
Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm

Drawings

Connection diagram



Dimensional drawing



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