

Inline terminal - IB IL AI 4/EF-PAC - 2878447

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Inline analog input terminal with differential input channels, complete with accessories (connector plug and labeling field), 4 inputs, 0 - 20 mA, 4 - 20 mA, ± 20 mA, 0 - 10 V, ± 10 V, 0 - 5 V, ± 5 V), 2-, 3- or 4-wire connection technology

Product Features

- Short update time of 1 ms, maximum for all channels
- Sensor supply with channel-specific integrated short-circuit and overload protection
- Bus-synchronous provision of input values with very low jitter ($< 10 \mu\text{s}$)
- Measured value acquisition with 16-bit resolution
- 4 differential signal inputs
- Connection of sensors in 2, 3, and 4-wire technology
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA, ± 20 mA
- Voltage ranges: 0 V ... 10 V, ± 10 V, 0 V ... 5 V, ± 5 V
- Short-circuit
- Diagnostic and status indicators



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	251.1 GRM
Custom tariff number	85389091
Country of origin	Germany

Technical data

Note

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

Width	48.8 mm
Height	136.8 mm

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Technical data

Dimensions

Depth	71.5 mm
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Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °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

Weight	210 g
Note on weight specifications	with connectors
Mounting type	DIN rail
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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

Interfaces

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. 100 mA
	typ. 85 mA
Current consumption from U_M	max. 200 mA
I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	max. 20 mA
	typ. 13 mA

Analog inputs

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Technical data

Analog inputs

Number of inputs	max. 4 (Differential inputs, voltage or current can be chosen separately)
Connection method	Inline shield connector
	2, 3-conductor
Input name	Analog inputs
Data formats	IL, IB ST, standardized display, S7 compatible
Measured value resolution	16 bits (15 bits + sign bit)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Number of inputs	4 (differential inputs, voltage)
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Input resistance of voltage input	300 kΩ
Number of inputs	4 (differential inputs, current)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Input resistance current input	approx. 110 Ω

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

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Classifications

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
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 / LR / GL / BV / DNV / ABS / GL-SW / BSH / cULus Recognized / GL

Ex Approvals

UL Listed / cUL Listed / cUL Listed / cULus Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized 

cUL Recognized 
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LR

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Approvals

GL

BV

DNV

ABS

GL-SW

BSH

cULus Recognized 

GL

Accessories

Accessories

Device parameterization

Software - AX+ BASIC - 2985068



Software-CD für FDT-Container zur Integration von Geräte-DTM (kostenlos zum Download)

Software - AX DTM LIB - 2988065



DTM library

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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 - 2726353



Inline shield connector

Terminal marking

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



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Accessories

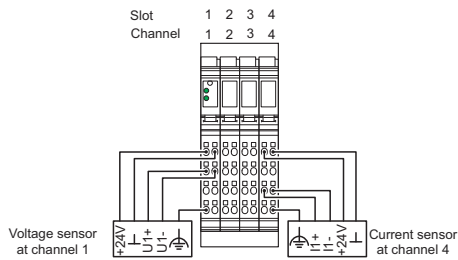
Insert strip - ESL 62X10 - 0809492

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



Dimensioned drawing

