

Inline terminal - IB IL AI 8/SF-2MBD - 2855648

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Inline analog input terminal, without accessories, 8 inputs, 0-20 mA, 4-20 mA, ± 20 mA, 0-10 V, ± 10 V, (also 0-40 mA, ± 40 mA, 0-5 V, ± 5 V, 0-25 V, ± 25 V, 0-50 V), transmission speed 2 Mbaud, 2-conductor connection method

The illustration shows version IB IL AI 8/SF

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

- ✓ 8 analog single-ended signal inputs for the connection of either voltage or current signals
- ✓ Connection of sensors in 2-wire technology
- ✓ Measured values can be represented in five different formats
- ✓ 16-bit analog/digital converter
- ✓ Diagnostic and status indicators
- ✓ From hardware version 02, approved for use in potentially explosive areas of zone 2



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	156.7 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
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Dimensions

Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm

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

Net weight	213 g
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

Fieldbus system	Lokalbus
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	2 MBit/s
Transmission physics	Copper

Inline potentials

Communications power U_L	7.5 V DC (via voltage jumper)
Current consumption from U_L	max. 85 mA
	typ. 68 mA

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Inline potentials

I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	max. 38 mA
	typ. 24 mA

Analog inputs

Number of inputs	max. 8 (single ended)
Connection method	2-wire (shielded)
Input name	Analog inputs
A/D conversion time	approx. 10 μ s
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
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
Number of inputs	8 (single-ended voltage inputs)
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 k Ω 0.01 %
Number of inputs	8 (single-ended current inputs)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA

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Analog inputs

	-20 mA ... 20 mA
	0 mA ... 40 mA
	-40 mA ... 40 mA
Input resistance current input	25 Ω 0.01 %

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

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

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UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

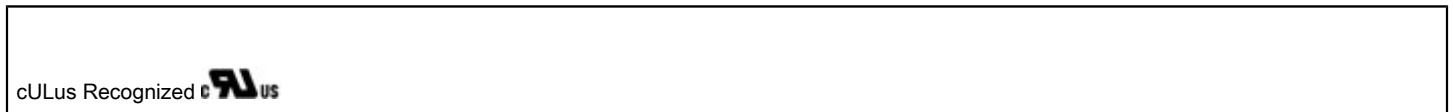
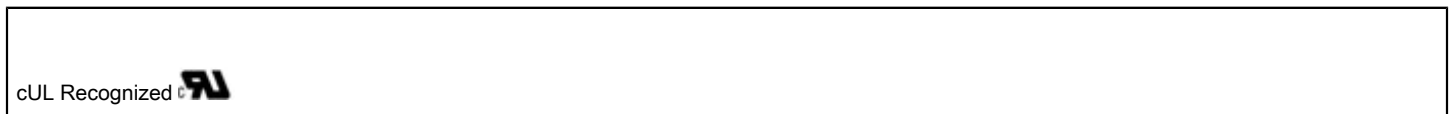
ATEX

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Approvals

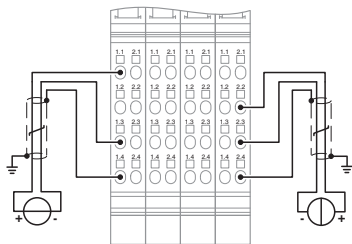
Approvals submitted

Approval details



Drawings

Connection diagram



Dimensional drawing

