

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

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 figure shows version IB IL AI 8/SF

Product description

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

Your advantages

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

Commercial data

Item number	2855648
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI141
GTIN	4017918876883
Weight per piece (including packing)	156.7 g
Weight per piece (excluding packing)	213 g
Customs tariff number	85389091
Country of origin	DE

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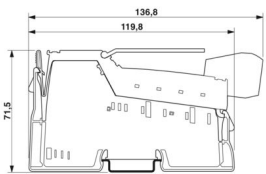


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Technical data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm

Notes

Utilization restriction

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

Color	green
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Interfaces

Inline local bus

No. of channels	8
Connection method	Inline data jumper
Transmission speed	2 Mbps
Transmission physics	Copper

System properties

Programming data

Length code (hex)	02
ID code (dec.)	95
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

Fieldbus data telegram

Required parameter data	6 Byte
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Input data

Analog: General

Input name	Analog inputs
Number of inputs	max. 8 (single ended)
A/D conversion time	approx. 10 μ s
Connection technology	2-conductor (shielded)
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
Data formats	IB IL, IB ST, IB RT, standardized representation, PIO format
Limit frequency (3 dB)	3.5 kHz
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign bit)
Measured value representation	16 bit two's complement

Analog: Voltage inputs

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 %

Analog: Current inputs

Number of inputs	8 (single-ended current inputs)
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 %

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Product properties

Product type	I/O component
Type	modular
	Inline

Electrical properties

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 85 mA
	typ. 68 mA

Potentials: Supply of analog modules (U_{ANA})

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 38 mA
	typ. 24 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply, incoming remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply, outgoing remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / I/O	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: I/O/functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector
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Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Degree of protection	IP20
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)

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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)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

Mounting type	DIN rail mounting
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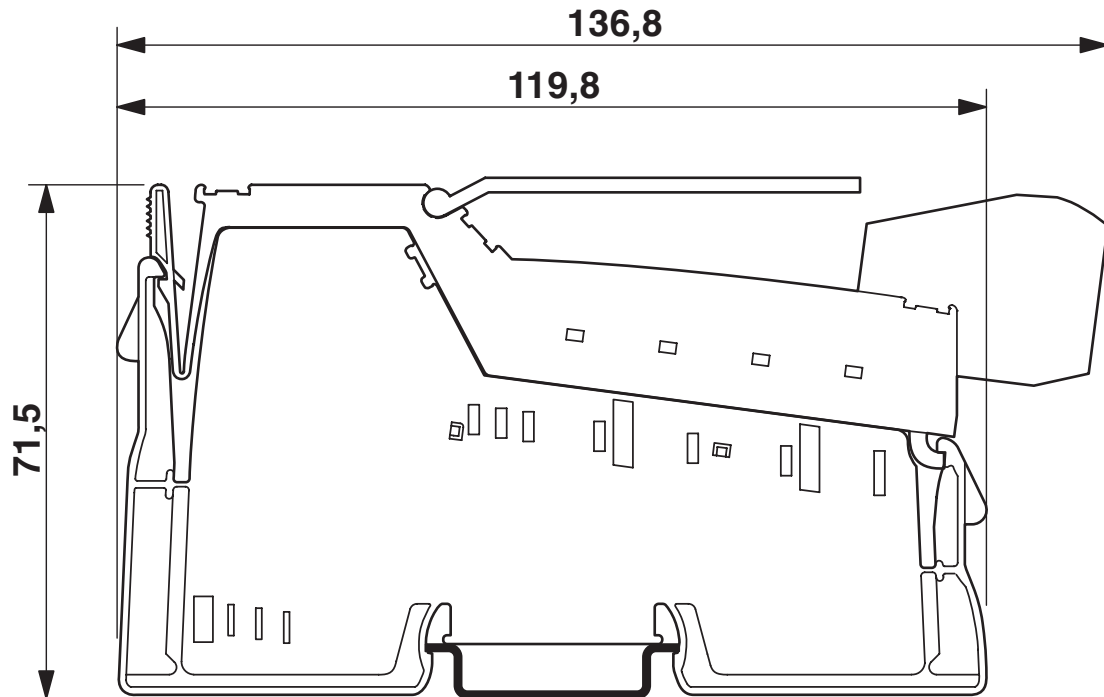
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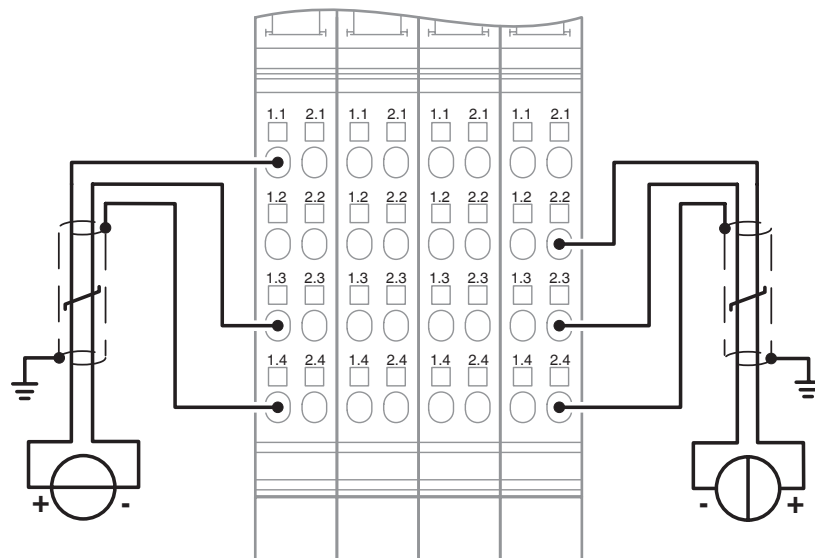
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Drawings

Dimensional drawing



Connection diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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