

## Inline terminal - IB IL AI 8/SF-2MBD-PAC - 2862042

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Inline, Analog input terminal, Analog inputs: 8, 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, 0 mA ... 20 mA, 4 mA ... 20 mA, -20 mA ... 20 mA, 0 mA ... 40 mA, -40 mA ... 40 mA, connection method: 2-wire, transmission speed in the local bus: 2 Mbps, degree of protection: IP20, including Inline connectors and marking fields

### 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
- 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
GTIN	 4 017918 974688
GTIN	4017918974688

### 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
Depth	71.5 mm
Note on dimensions	Housing dimensions

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## Technical data

### 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

Mounting type	DIN rail
Color	green
Net weight	213 g
Note on weight specifications	with connectors

### Interfaces

Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	2 Mbps
Transmission physics	Copper

### Inline potentials

Designation	Communications power ( $U_L$ )
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 68 mA
	max. 85 mA
Designation	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 consumption	typ. 24 mA
	max. 38 mA
Power consumption	typ. 1086 mW (entire device)

### Analog inputs

Description of the input	Single-ended inputs, voltage or current
Input name	Analog inputs
Number of inputs	8
Connection method	Inline shield connector
Connection technology	2-wire
Note regarding the connection technology	shielded
A/D conversion time	approx. 10 $\mu$ s
A/D converter resolution	16 bit
Limit frequency (3 dB)	3.5 kHz
Data formats	IB IL, IB ST, IB RT, standardized representation, PIO format

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## Technical data

### Analog inputs

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 % (Shunt)
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 %

### Electrical isolation

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 <sub>ANA</sub> / I/O 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logic), 24 V supply U <sub>ANA</sub> / 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)

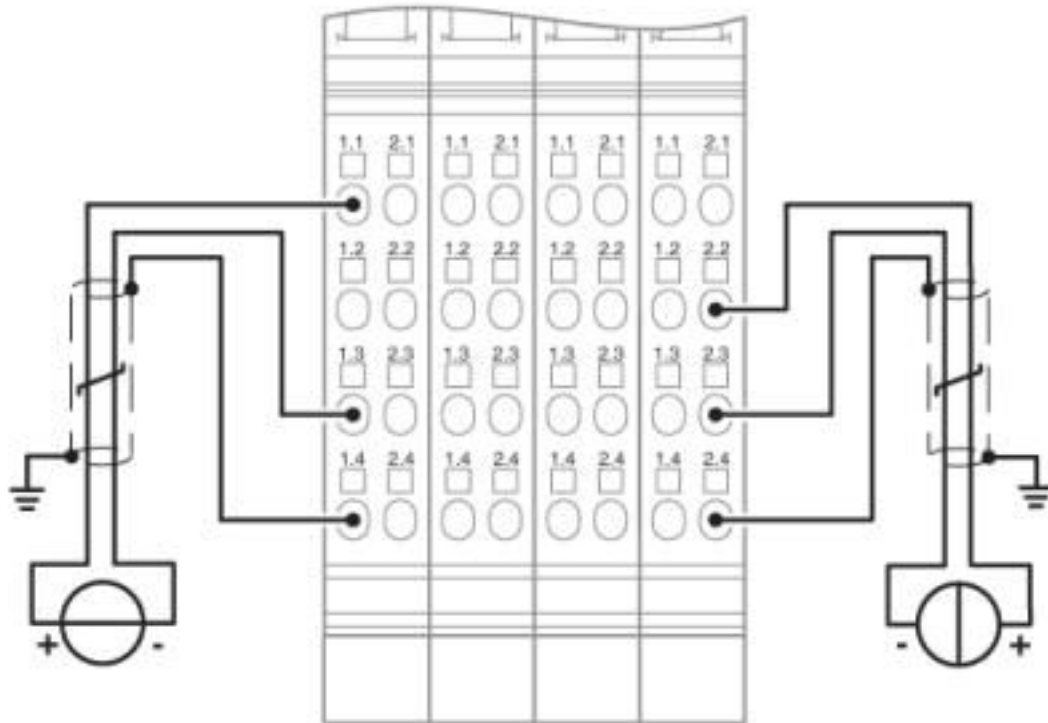
### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

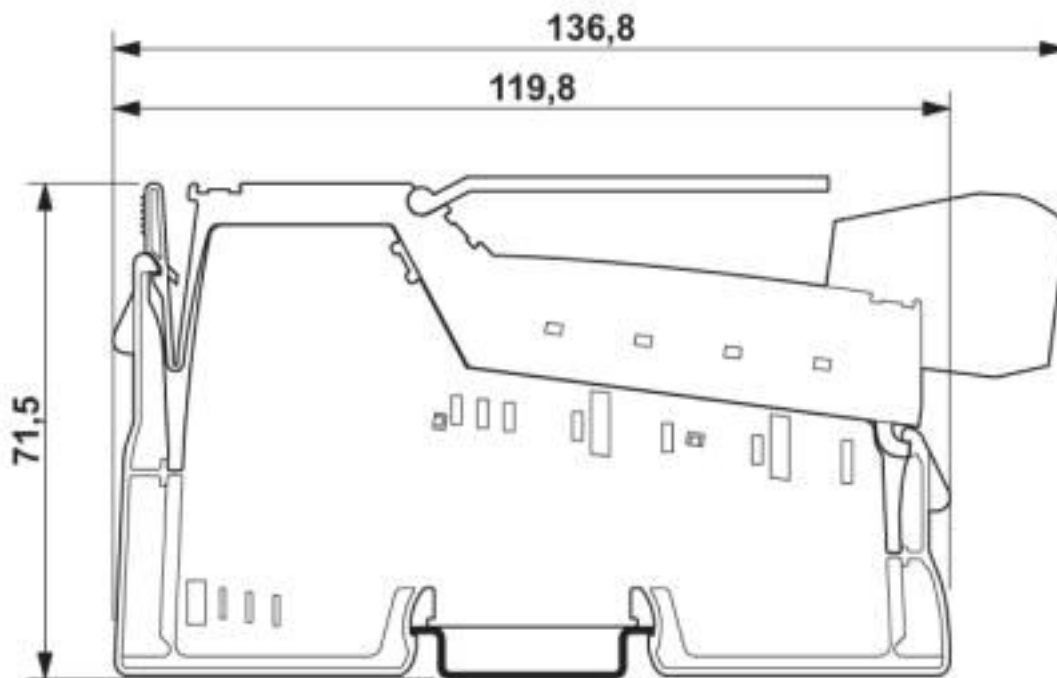
## Drawings

# Inline terminal - IB IL AI 8/SF-2MBD-PAC - 2862042

Connection diagram



Dimensional drawing



# Inline terminal - IB IL AI 8/SF-2MBD-PAC - 2862042

## Classifications

### eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
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 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596
ETIM 6.0	EC001596

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 19.0	32151602

## Accessories

### Accessories

#### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



## Inline terminal - IB IL AI 8/SF-2MBD-PAC - 2862042

### Accessories

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#### Plug

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



Inline shield connector

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#### 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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Insert strip - ESL 62X46 - 0809502



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120

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