

# Inline terminal - IB IL AI 2/SF-PAC - 2861302

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Inline analog input terminal, complete with accessories (connector plug and labeling field), 2 inputs, 0 - 20 mA, 4 - 20 mA,  $\pm 20$  mA, 0 - 10 V,  $\pm 10$  V, 2-wire 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 bitsIt 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



## Key commercial data

package_quantity	1
GTIN	4017918894245

## Technical data

### Note

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

Width	12.2 mm
Height	136.8 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)

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## Technical data

### Ambient conditions

<b>Air pressure (storage/transport)</b>	70 kPa ... 106 kPa (up to 3000 m above sea level)
<b>Degree of protection</b>	IP20

### General

<b>Weight</b>	69 g
<b>Note on weight specifications</b>	with connector
<b>Mounting type</b>	DIN rail
<b>Operating mode</b>	Process data operation with 2 words
<b>Protection class</b>	III, IEC 61140, EN 61140, VDE 0140-1
<b>Test section</b>	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min
<b>Test section</b>	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min
<b>Test section</b>	7.5 V supply (bus logic), 24 V supply $U_{ANA}$ / I/O 500 V AC 50 Hz 1 min
<b>Test section</b>	7.5 V supply (bus logic), 24 V supply $U_{ANA}$ /functional earth ground 500 V AC 50 Hz 1 min
<b>Test section</b>	I/O / functional earth ground 500 V AC 50 Hz 1 min

### Interfaces

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

### Inline potentials

<b>Communications power <math>U_L</math></b>	7.5 V DC (via voltage jumper)
<b>Current consumption from <math>U_L</math></b>	max. 60 mA
<b>Current consumption from <math>U_L</math></b>	typ. 45 mA
<b>Current consumption from <math>U_S</math></b>	0 A DC
<b>I/O supply voltage <math>U_{ANA}</math></b>	24 V DC
<b>Current consumption from <math>U_{ANA}</math></b>	max. 18 mA
<b>Current consumption from <math>U_{ANA}</math></b>	typ. 13 mA

### Analog inputs

<b>Number of inputs</b>	max. 2 (single ended)
<b>Connection method</b>	Inline shield connector
<b>Connection method</b>	2-wire (shielded)
<b>Input name</b>	Analog inputs
<b>A/D conversion time</b>	approx. 120 $\mu$ s (per channel)
<b>Resolution A/D</b>	16 bit
<b>Limit frequency (3 dB)</b>	40 Hz
<b>Data formats</b>	IL, IB ST, IB RT, standardized display
<b>Measured value resolution</b>	16 bits (15 bits + sign bit)

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## Technical data

### Analog inputs

Measured value representation	16 bits (15 bits + sign bit)
Current input signal	0 mA ... 20 mA
Current input signal	4 mA ... 20 mA
Current input signal	-20 mA ... 20 mA
Voltage input signal	0 V ... 10 V
Voltage input signal	-10 V ... 10 V
Input resistance of voltage input	> 220 kΩ
Number of inputs	2 (single-ended voltage inputs)
Voltage input signal	0 V ... 10 V
Voltage input signal	-10 V ... 10 V
Input resistance of voltage input	> 220 kΩ
Number of inputs	2 (single-ended current inputs)
Current input signal	0 mA ... 20 mA
Current input signal	4 mA ... 20 mA
Current input signal	-20 mA ... 20 mA
Input resistance current input	50 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

### 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

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## approvals

UL Listed / cUL Listed / UL Listed / cUL Listed / ATEX / cULus Listed / UL Recognized / cUL Recognized / GOST / LR / GL / BV / DNV / ABS / RINA / GL-SW / BSH / UL Recognized / cUL Recognized / GOST / LR / GL / BV / DNV / ABS / GL-SW / BSH / cULus Recognized / GL /

### Approval details

UL Listed
cUL Listed
UL Listed
cUL Listed
ATEX
cULus Listed
UL Recognized
cUL Recognized
GOST
LR

# Inline terminal - IB IL AI 2/SF-PAC - 2861302

approvals

GL

BV

DNV

ABS


RINA

GL-SW

BSH

UL Recognized 

cUL Recognized 



LR

GL


BV

DNV

GL-SW

## Inline terminal - IB IL AI 2/SF-PAC - 2861302

approvals

cULus Recognized  US

accessories

**Plug**

IB IL SCN 6-SHIELD-TWIN - 2740245



IB IL SCN-6 SHIELD - 2726353



**Labeling panel**

IB IL FIELD 2 - 2727501



**Terminal marking**

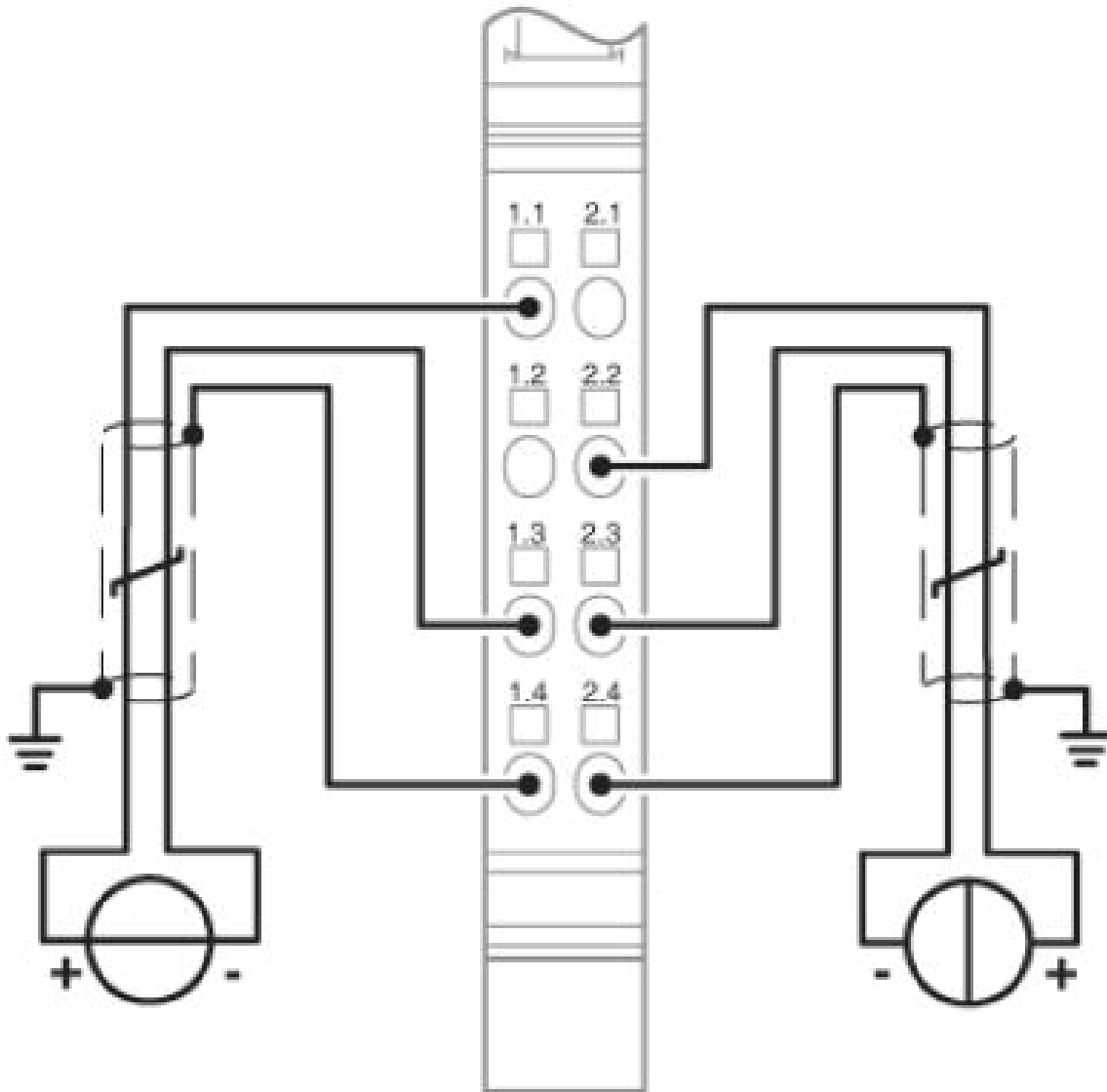
ESL 62X10 - 0809492



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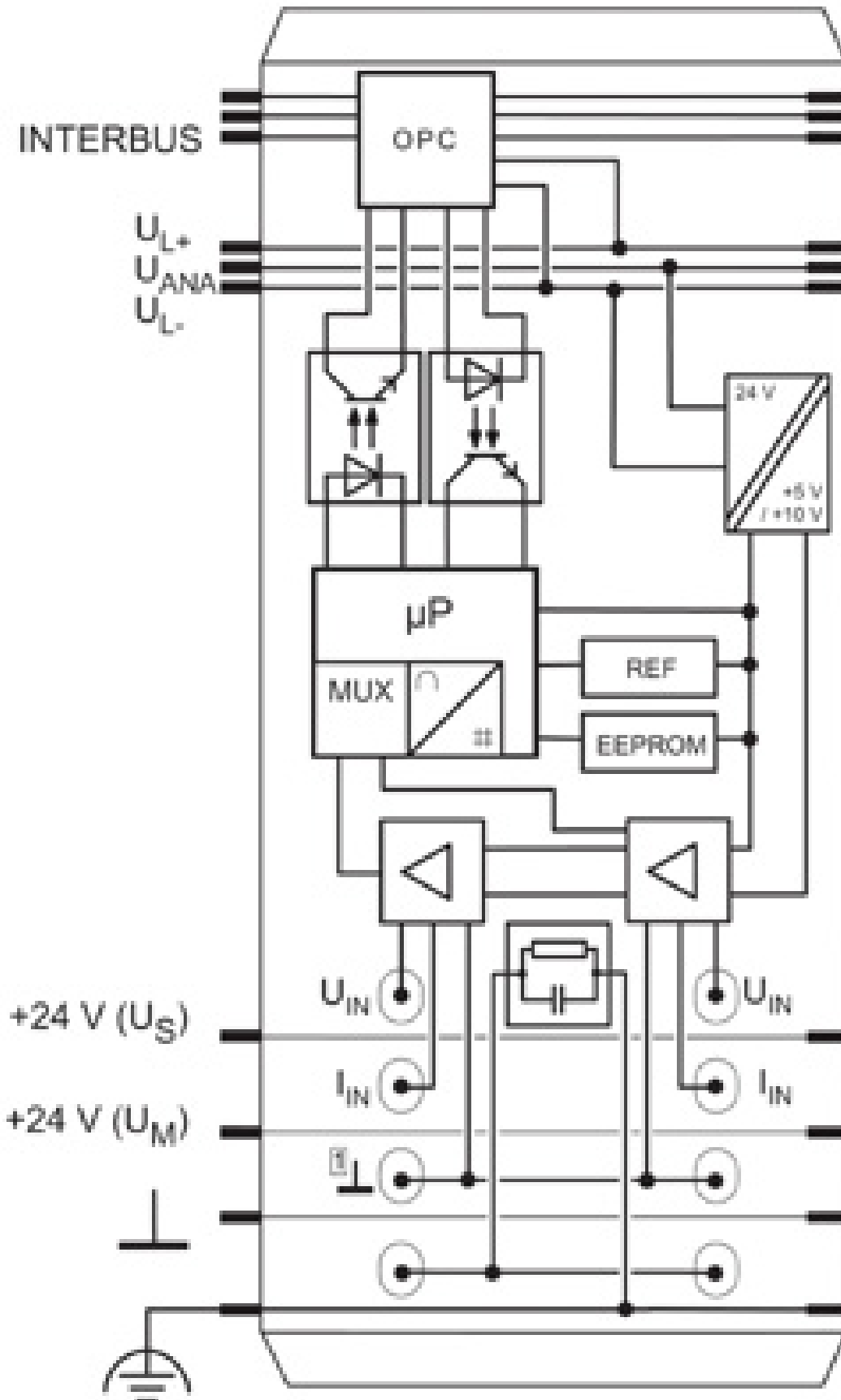
## Drawings

### Connection diagram



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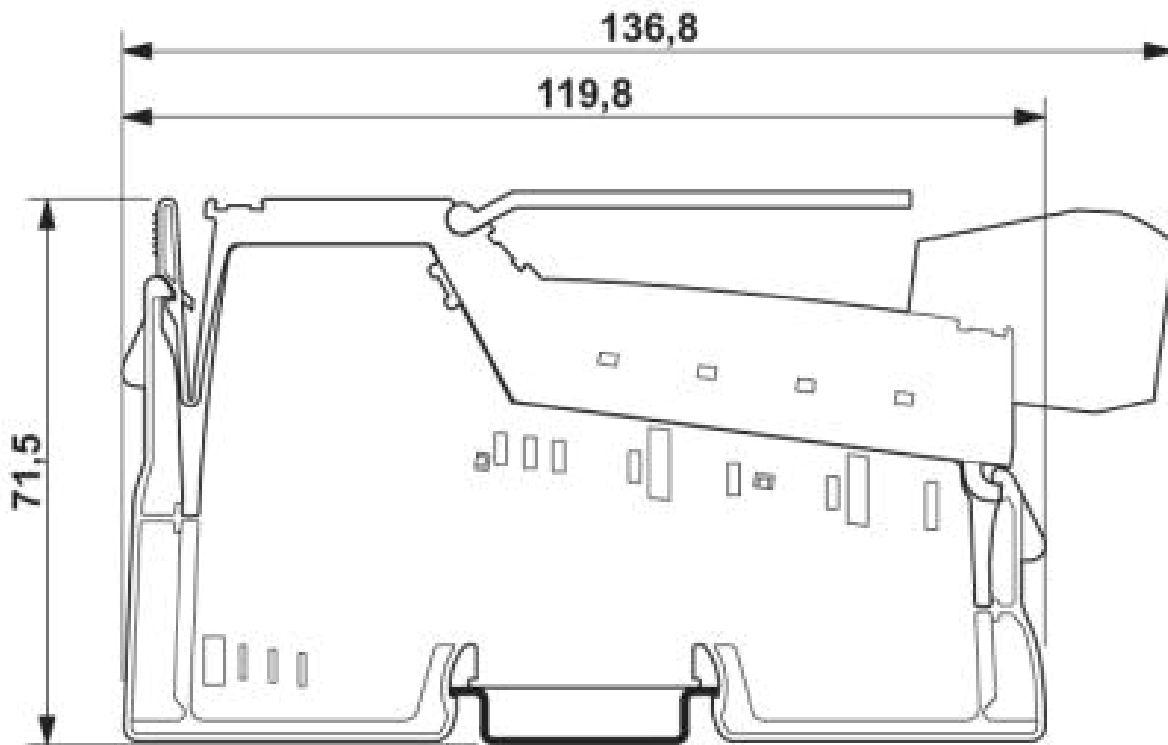
Block diagram





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Dimensioned drawing



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