

Inline terminal - IB IL AI 8/SF-PAC - 2861412

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Inline analog input terminal, complete with accessories (connector and labeling field), 8 inputs, 0 - 20 mA, 4 - 20 mA, ± 20 mA, 0 - 10 V, ± 10 V, (additionally 0 - 40 mA, ± 40 mA, 0 - 5 V, ± 5 V, 0 - 25 V, ± 25 V, 0 - 50 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 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

- High measuring accuracy
- Excellent interference suppression and common mode rejection
- Integrated short-circuit-proof sensor supply
- Overload-protected current inputs



Key Commercial Data

| | |
|--------------------------------------|----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 251.7 g |
| 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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Technical data

Dimensions

| | |
|--------------------|--------------------|
| Width | 48.8 mm |
| Height | 136.8 mm |
| Depth | 71.5 mm |
| Note on dimensions | Housing dimensions |

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 |
| Net weight | 213 g |
| Note on weight specifications | with connectors |
| Operating mode | Process data operation with 2 words |
| Diagnostics messages | Failure of the power supply at U_{ANA} |
| | Peripheral fault Error message in the process data |
| | User error Error message in the process data |

Interfaces

| | |
|----------------------|--------------------|
| Fieldbus system | Lokalbus |
| 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. 55 mA |
| | typ. 48 mA |
| I/O supply voltage U_{ANA} | 24 V DC |
| Current consumption from U_{ANA} | max. 35 mA |
| | typ. 24 mA |

Analog inputs

| | |
|--------------------------|---|
| Description of the input | Single-ended inputs, voltage or current |
|--------------------------|---|

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Analog inputs

| | |
|-----------------------------------|---|
| Input name | Analog inputs |
| Number of inputs | 8 |
| Connection method | 2-wire (shielded) |
| A/D conversion time | approx. 10 µs |
| Resolution A/D | 16 bit |
| 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 |
| Input resistance current input | 25 Ω 0.01 % |
| 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 % |

Standards and Regulations

| | |
|----------------------------------|--|
| 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. |
| Connection in acc. with standard | CUL |
| Protection class | III, IEC 61140, EN 61140, VDE 0140-1 |

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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 |

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / LR / BV / ABS / RINA / BSH / BSH / EAC / cULus Recognized

Ex Approvals


ATEX

Approvals submitted

Approval details

Inline terminal - IB IL AI 8/SF-PAC - 2861412

Approvals

UL Recognized 

cUL Recognized 

LR

BV

ABS

RINA

BSH

BSH

EAC

cULus Recognized  US

Accessories

Accessories

Labeling panel

Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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Accessories

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Plug

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



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



Insert strip - ESL 62X10 - 0809492

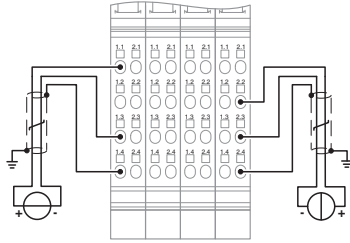
Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm



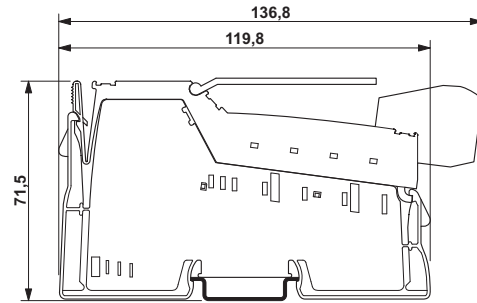
Drawings

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Connection diagram



Dimensional drawing



Mouser Electronics

Authorized Distributor

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