

Inline terminal - IB IL AI 8/SF-XC-PAC - 2701159

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Inline XC, 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: 500 kbps, Extreme conditions version, degree of protection: IP20, including Inline connectors and marking fields

The figure shows the standard item

Product Description


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

Your advantages

- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Coated PCBs
- High measuring accuracy



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 713849 |
| GTIN | 4046356713849 |

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 (Standard) |
| | -40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

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Technical data

Ambient conditions

| | |
|--|---|
| 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 | 500 kbps |
| Transmission physics | Copper |

Inline potentials

| | |
|----------------------|--|
| Designation | Communications power (U_L) |
| Supply voltage | 7.5 V DC (via voltage jumper) |
| Current consumption | typ. 48 A |
| | max. 55 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. 35 mA |

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 μ s |
| A/D converter resolution | 16 bit |
| Limit frequency (3 dB) | 3.5 kHz |
| Type of protection | Surge protection, overcurrent protection |
| Data formats | IB IL, IB ST, IB RT, standardized representation, PIO format |
| Measuring principle | Successive approximation |
| Measured value resolution | 16 bits (15 bits + sign bit) |

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Technical data

Analog inputs

| | |
|-----------------------------------|-------------------------|
| 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 (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 |
| Filtering | 1st order low pass |

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_{ANA} / I/O 500 V AC 50 Hz 1 min. |
| | 7.5 V supply (bus logic), 24 V supply U_{ANA} / 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) |

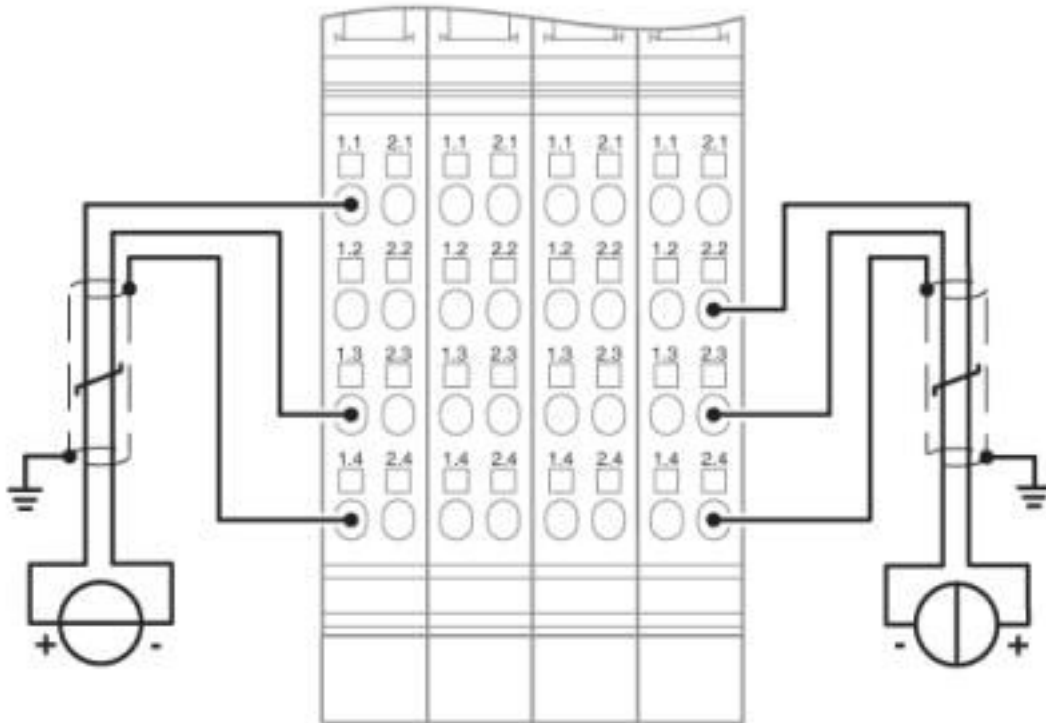
Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

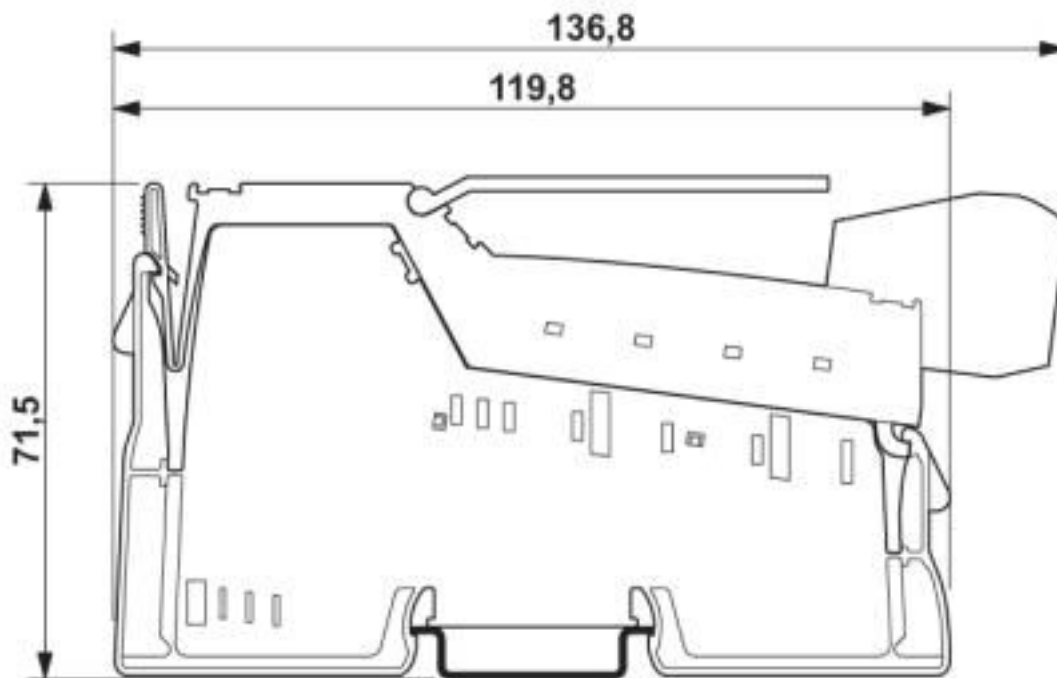
Drawings

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Connection diagram



Dimensional drawing



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Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27242601 |
| eCl@ss 4.0 | 27250300 |
| eCl@ss 4.1 | 27250300 |
| eCl@ss 5.0 | 27250300 |
| 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 3.0 | EC001596 |
| ETIM 4.0 | EC001599 |
| ETIM 5.0 | EC001596 |
| ETIM 6.0 | EC001596 |
| ETIM 7.0 | EC001596 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11 | 43172015 |
| UNSPSC 12.01 | 43201404 |
| UNSPSC 13.2 | 32151602 |
| UNSPSC 18.0 | 32151602 |
| UNSPSC 19.0 | 32151602 |
| UNSPSC 20.0 | 32151602 |
| UNSPSC 21.0 | 32151602 |

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: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120



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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