

Inline terminal - IB IL TEMP 2 UTH-PAC - 2861386

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Inline, Temperature measurement terminal, Analog UTH inputs: 2 (Thermocouples or linear voltage), connection method: 2-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

Product Description

The terminal is designed for use within an Inline station.

This terminal can be used to acquire signals from standard thermocouples.

It supports 13 different types of thermocouples according to DIN EN 60584-1 and DIN 43710, as well as a linear voltage input of -15 mV to +85 mV.

Your advantages

- 2 differential inputs for thermocouples or linear voltage
- 1 input for an external cold junction, Pt 1000 or Ni 1000
- The channels are parameterized independently of one another via the bus system
- Internal detection and compensation of cold junction temperature (can be parameterized)
- Absolute and differential temperature measurement (can be parameterized)
- Pt 1000 sensor in the vicinity of the connection terminal blocks of the thermocouple inputs for internal measurement of the cold junction temperature
- Measured values can be represented in three different formats

Key Commercial Data

| | |
|--------------------------------------|---------------------|
| Packing unit | 1 pc |
| GTIN | 4 017918 894320 |
| GTIN | 4017918894320 |
| Weight per Piece (excluding packing) | 97.100 g |
| Custom tariff number | 85389091 |
| Country of origin | Germany |

Technical data

Note

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Technical data

Note

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

Dimensions

| | |
|--------------------|--------------------|
| Width | 12.2 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 % (non-condensing) |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing) |
| 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 | 67 g |
| Note on weight specifications | with connector |
| Operating mode | Process data operation with 2 words |
| Diagnostics messages | Failure of the internal I/O supply I/O error message sent to the bus coupler |
| | Failure of or insufficient communications power U_L I/O error message sent to the bus coupler |
| | I/O error Error message in the process data |
| | User error Error message in the process data |

Interfaces

| | |
|--------------------|--------------------|
| Designation | Inline local bus |
| No. of channels | 2 |
| Connection method | Inline data jumper |
| Transmission speed | 500 kbps |

Inline potentials

| | |
|---------------------|--------------------------------|
| Designation | Communications power (U_L) |
| Supply voltage | 7.5 V DC (via voltage jumper) |
| Current consumption | typ. 43 mA |
| | max. 60 mA |

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Inline potentials

| | |
|----------------------|--|
| Designation | Supply of analog modules (U _{ANA}) |
| Supply voltage | 24 V DC (via voltage jumper) |
| Supply voltage range | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current consumption | typ. 11 mA |
| | max. 18 mA |
| Power consumption | typ. 587 mW |

Analog inputs

| | |
|--|---|
| Number of inputs | 2 (Thermocouples or linear voltage) |
| Input name | Analog UTH inputs |
| Description of the input | Inputs for thermocouples or linear voltage |
| Connection method | Inline connector |
| Connection technology | 2-wire |
| Note regarding the connection technology | Shielded compensating line for TC with encapsulated sensors |
| Sensor types that can be used (TC) | U, T, L, J, E, K, N, S, R, B, C, W, HK |
| Measuring principle | Successive approximation |
| Measured value representation | 16 bits (15 bits + sign bit) |
| A/D conversion time | typ. 120 µs (per channel) |
| Process data update | max. 30 ms (For both channels) |
| Type of protection | Surge protection (TC channels) |

Electrical isolation

| | |
|--------------|---|
| Test section | 7.5 V supply (bus logics)/24 V analog supply (analog I/O) 500 V AC 50 Hz 1 min. |
| | 7.5 V supply (bus logics) / functional earth ground 500 V AC 50 Hz 1 min. |
| | 24 V analog supply (analog I/O) / functional earth 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) |

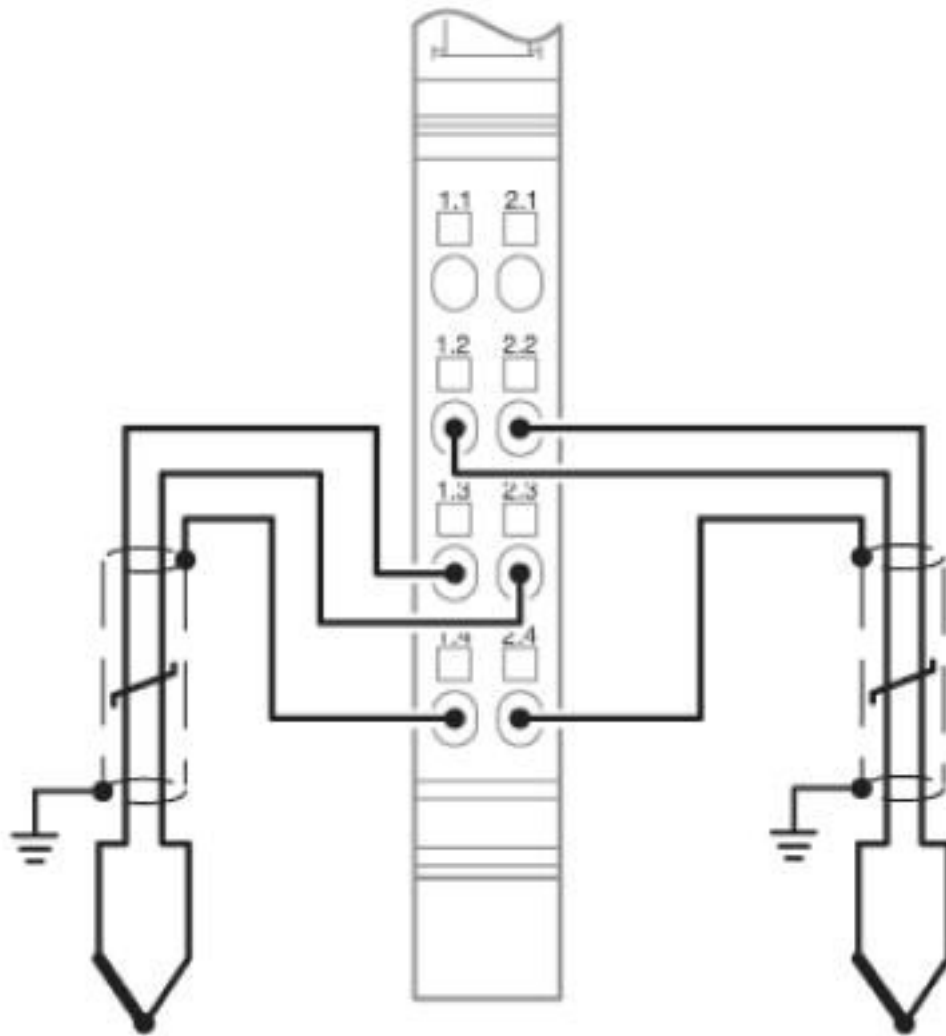
Environmental Product Compliance

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

Drawings

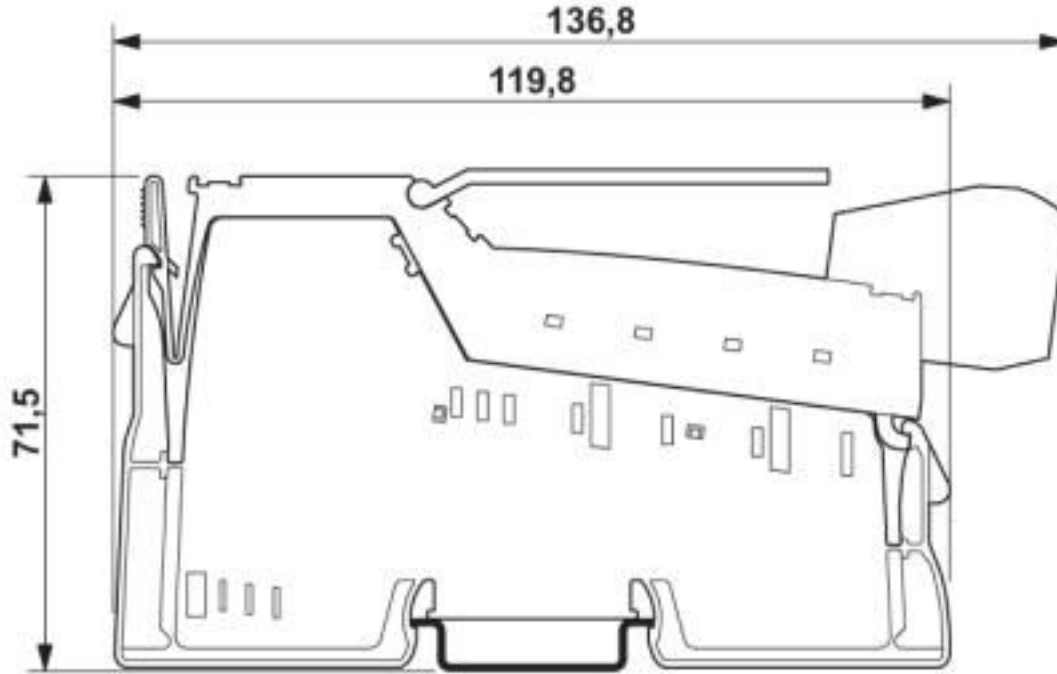
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Connection diagram



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Dimensional drawing



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 2.0 | EC001431 |
| ETIM 3.0 | EC001596 |
| ETIM 4.0 | EC001596 |
| ETIM 5.0 | EC001596 |
| ETIM 6.0 | EC001596 |
| ETIM 7.0 | EC001596 |

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Classifications

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 |

Approvals

Approvals

Approvals

DNV GL / BSH / BV / LR / ABS / BSH / RINA / UL Recognized / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

| | | | |
|--------|---|---|------------|
| DNV GL |  | https://approvalfinder.dnvgl.com/ | TAA00000BN |
|--------|---|---|------------|

| | | | |
|-----|--|--|-----------------|
| BSH | | | Anwenderhinweis |
|-----|--|--|-----------------|

| | | | |
|----|---|---|-------------|
| BV |  | http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials | 20977/B1 BV |
|----|---|---|-------------|

| | | | |
|----|---|---|----------|
| LR |  | http://www.lr.org/en | 08/20033 |
|----|---|---|----------|

| | | | |
|-----|--|---|------------------|
| ABS | | http://www.eagle.org/eagleExternalPortalWEB/ | 17-HG1621871-PDA |
|-----|--|---|------------------|

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Approvals

| | | | |
|---------------|--|---|---------------|
| BSH | | | 658 |
| RINA | | http://www.rina.org/en | ELE335818XG |
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 140324 |
| EAC | | | EAC-Zulassung |

Accessories

Accessories

Feed-through terminal block

Thermoelectric voltage terminal block pair - MTKD-CU/CUNI - 3100059



Thermoelectric voltage terminal block pair, TC type T, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

Thermoelectric voltage terminal block pair - MTKD-FE/CUNI - 3100046



Thermoelectric voltage terminal block pair, TC type J, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

Thermoelectric voltage terminal block pair - MTKD-NICR/CUNI - 3100075



Thermoelectric voltage terminal block pair, TC type E, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

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Accessories

Thermoelectric voltage terminal block pair - MTKD-NICR/NI - 3100062



Thermoelectric voltage terminal block pair, TC type K, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

Thermoelectric voltage terminal block pair - MTKD-E-CU/A-CU - 3100091



Thermoelectric voltage terminal block pair, TC type R, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

Thermoelectric voltage terminal block pair - MTKD-S-CU/E-CU - 3100101



Thermoelectric voltage terminal block pair, TC type B, nom. voltage: 400 V, nominal current: 1 A, connection method: Screw connection, number of connections: 4, number of positions: 2, cross section: 0.2 mm² - 4 mm², AWG: 24 - 12, width: 10.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Plug

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Accessories

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



Inline shield connector

Inline shield connector - IB IL SCN-6 SHIELD - 2726353



Inline shield connector

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
