

Inline function terminal - IB IL UTH 4/K-ECO - 2702503

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Inline ECO, Temperature measurement terminal, Analog UTH inputs: 4 (type K), connection method: 2-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector

Product Description

The terminal is designed for use within an Inline station. This terminal can be used to acquire signals from standard thermocouples. The terminal supports type K thermocouples according to DIN EN 60584-1. The measured values are depicted in standardized representation format. Inline ECO terminals are approved for the temperature range from 0°C to +55°C. The electronics base and Inline connector are supplied as standard.

Your advantages

- 4 differential inputs for thermocouples
- Measuring range: -270 °C ... +1372 °C
- Connection of sensors in 2-wire technology
- Diagnostic information in the process data word
- Diagnostic indicator



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626206080
Weight per Piece (excluding packing)	69.000 g
Custom tariff number	85389091
Country of origin	Germany
Note	Made to Order (non-returnable)

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	12.2 mm
Height	119.8 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	0 °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	69 g
Note on weight specifications	with connector
Diagnostics messages	Failure of the internal I/O supply I/O error message sent to the bus coupler
	Checksum error I/O error message sent to the bus coupler

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. 38 mA
	max. 55 mA
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. 32 mA
	max. 39 mA
Power consumption	typ. 1.05 W (total)

Analog inputs

Number of inputs	4 (type K)
Input name	Analog UTH inputs
Description of the input	Differential inputs

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Technical data

Analog inputs

Connection method	Inline connector
Connection technology	2-wire
Note regarding the connection technology	shielded
Sensor types that can be used (TC)	K
Measuring principle	Sigma/Delta process
Measured value representation	16 bits (15 bits + sign bit)
A/D conversion time	typ. 120 ms
A/D converter resolution	24 bit
Process data update	< 10 ms
Type of protection	Transient protection of inputs

Electrical isolation

Test section	Bus logic (local bus, communications power) 500 V AC 50 Hz 1 min.
	Analog I/O 500 V AC 50 Hz 1 min.
	Functional earth ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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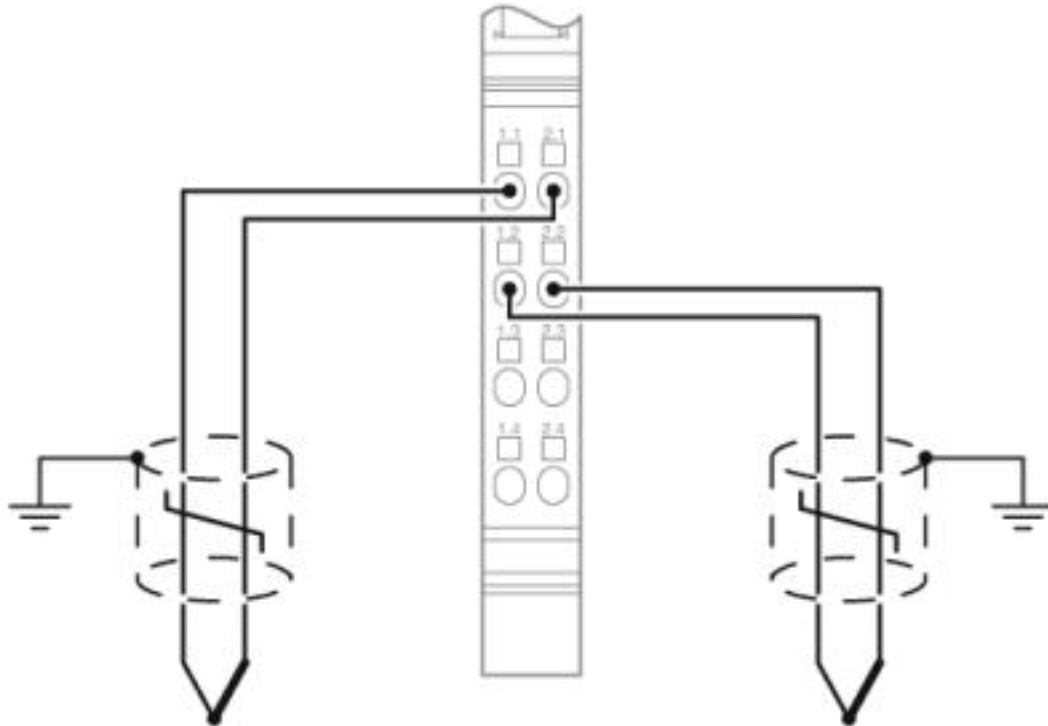
Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

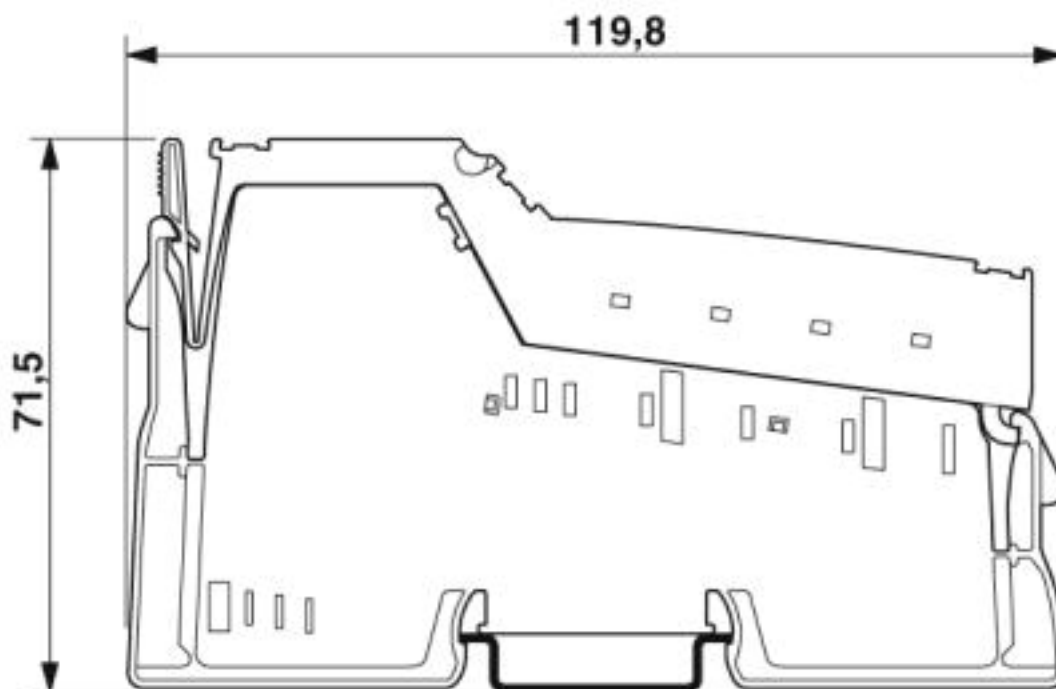
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Connection diagram



Connecting the sensors

Dimensional drawing



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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	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

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

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cULus Listed			
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Accessories

Accessories

Feed-through terminal block

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

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: green-yellow

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: black

Labeling panel

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Accessories

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



Neutral busbar, width: 10 mm, height: 3 mm, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, length: 1000 mm, color: silver

Pick-off terminal block

Connection terminal block - AK 4 - 0404017



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: silver

Plug

Inline connector - IB IL SCN-8 - 2726337

Connector, for digital 1, 2 or 8-channel Inline terminals



Shield connection clamp

Shield connection clamp - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

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Accessories

Shield connection clamp - SK 14 - 3025176



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Shield connection clamp - SK 20 - 3025189



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Shield connection clamp - SK 35 - 3026463



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Support

Support bracket - AB-SK - 3025341



Support bracket for busbars

Support bracket - AB-SK 65 - 3026489



Support bracket, Bracket for busbars, set every 20 cm, length: 95.5 mm, width: 6.2 mm, number of positions: 1, color: gray

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Accessories

Support bracket - AB-SK/E - 3026476



Support bracket, Bracket for busbars, set every 20 cm, length: 10 mm, width: 56 mm, height: 20 mm, number of positions: 2, color: silver

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