

## 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, 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.

### Why buy this product

- 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 STK
GTIN	
GTIN	4055626206080

### 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	119.8 mm
Depth	71.5 mm

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## Technical data

### 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
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
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

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## Technical data

### Analog inputs

Measured value representation	16 bits (15 bits + sign bit)
A/D conversion time	typ. 120 ms
Resolution A/D	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

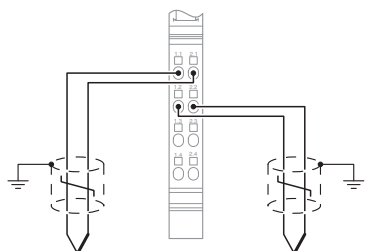
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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### Environmental Product Compliance

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

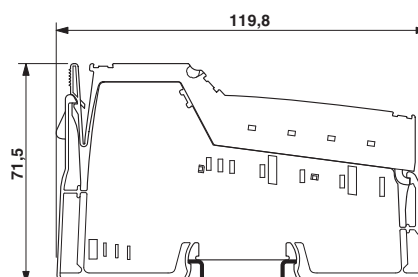
## Drawings

Connection diagram



Connecting the sensors

Dimensional drawing



## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed


Ex Approvals

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### Approvals

#### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cULus Listed			
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