



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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	 4 055626 206080
GTIN	4055626206080

### Technical data

#### Note

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

#### Dimensions

Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

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

## 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

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

## 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

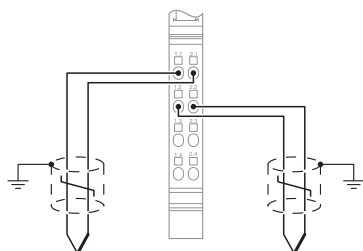
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
------------------	--------------------------------------

### Environmental Product Compliance

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

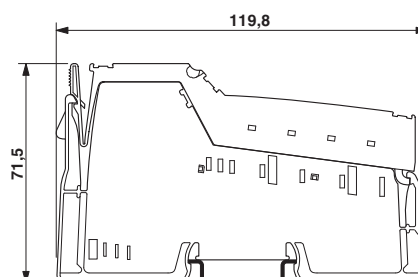
## Drawings

Connection diagram



Connecting the sensors

Dimensional drawing



## Approvals

### Approvals

Approvals


UL Listed / cUL Listed / cULus Listed


Ex Approvals

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

### 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
-----------	---	---	---------------

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
------------	---	---	---------------

cULus Listed			
--------------	---	--	--

Phoenix Contact 2018 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>