

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

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 documentation. Our general terms of use for downloads are valid.



Inline ECO, Temperature measurement terminal, Analog UTH inputs: 4 (Type L), connection technology: 2-conductor, 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 L thermocouples according to DIN EN 43710. 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: -200 °C ... +900 °C
- Connection of sensors in 2-conductor technology
- Diagnostic information in the process data word
- Diagnostic indicator

## Commercial data

Item number	2702504
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DR01
Product key	DRI143
GTIN	4055626206202
Weight per piece (including packing)	87.7 g
Weight per piece (excluding packing)	69 g
Customs tariff number	85389099
Country of origin	DE

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

## Technical data

### Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

### Material specifications

Color	green
-------	-------

### Interfaces

#### Inline local bus

No. of channels	2
Connection method	Inline data jumper
Transmission speed	500 kbps

### System properties

#### Programming data (LocalbusSlave)

Length code (hex)	04
ID code (dec.)	126
Length code (dec)	04
Process data channel	64 bit
Input address area	8 Byte
Output address area	0 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	64 bit

#### Fieldbus data telegram

Required parameter data	1 Byte
Required configuration data	4 Byte

### Input data

#### Analog:

Input name	Analog UTH inputs
Description of the input	Differential inputs
Number of inputs	4 (Type L)

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

Connection method	Inline connector
Connection technology	2-conductor
Note regarding the connection technology	shielded
A/D conversion time	typ. 120 ms
A/D converter resolution	24 bit
Sensor types that can be used (TC)	L
Tolerance, relative	typ. $\pm 0.28\%$ (of measuring range final value, incl. tolerance of the cold junction) see tables for tolerance values
Tolerance, absolute	typ. $\pm 1.9\text{ K}$ (Reference junction) see tables for tolerance values
Measuring principle	Sigma/Delta process
Measured value representation	16 bits (15 bits + sign bit)
Process data update	< 10 ms
Protective circuit	Transient protection of inputs

## Product properties

Product type	I/O component
Product family	Inline ECO
Type	modular
Scope of supply	including Inline 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

## Electrical properties

### Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 55 mA typ. 38 mA

### Potentials: 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 draw	max. 39 mA typ. 32 mA

### Electrical isolation/isolation of the voltage ranges

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

## Connection data

### Connection technology

Connection name	Inline connector
-----------------	------------------

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

## Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section, flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
Degree of protection	IP20
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)
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)

## Standards and regulations

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

## Mounting

Mounting type	DIN rail mounting
---------------	-------------------

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

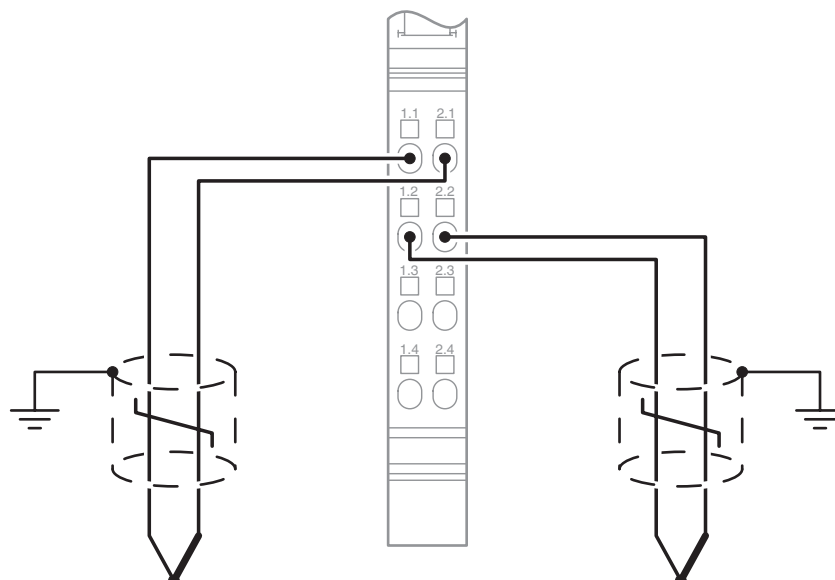
<https://www.phoenixcontact.com/us/products/2702504>

## Drawings

Dimensional drawing



Connection diagram



Connecting the sensors

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

## Classifications

### UNSPSC

UNSPSC 21.0	32151602
-------------	----------

# IB IL UTH 4/L-ECO - Inline function terminal



2702504

<https://www.phoenixcontact.com/us/products/2702504>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I, 7(c)-II

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
-------------------------------------	----------------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)