

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
Catalog page	Page 119 (C-6-2019)
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

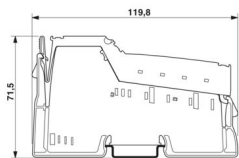


2702504

<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

Module	
ID code (dec.)	126
ID code (hex)	7E
Length code (hex)	04
Length code (dec)	04
Process data channel	64 bit
Input address area	8 Byte
Output address area	0 Byte
Register length	64 bit
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)
Connection method	Inline connector

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



2702504

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

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
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 delivery	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

Data management status

Article revision	02
------------------	----

Electrical properties

Potentials

Power consumption	typ. 1.05 W (total)
	max. 1.35 W (total)

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

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



2702504

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

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

Conductor connection

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

Inline connector

Connection method	Spring-cage connection
Conductor cross section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross section, flexible	0.08 mm ² ... 1.5 mm ²
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
---------------	-------------------

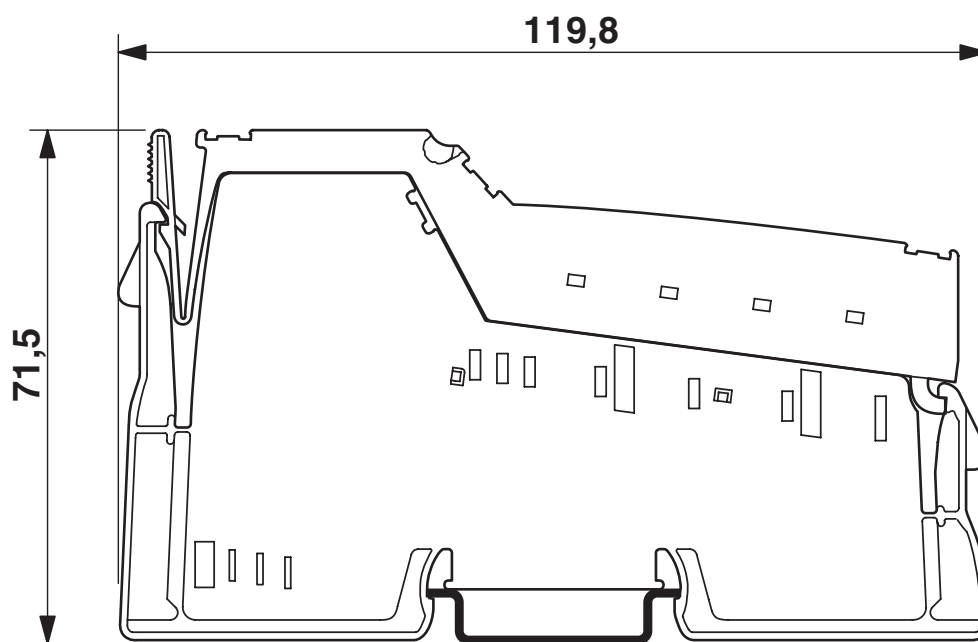
IB IL UTH 4/L-ECO - Inline function terminal

2702504

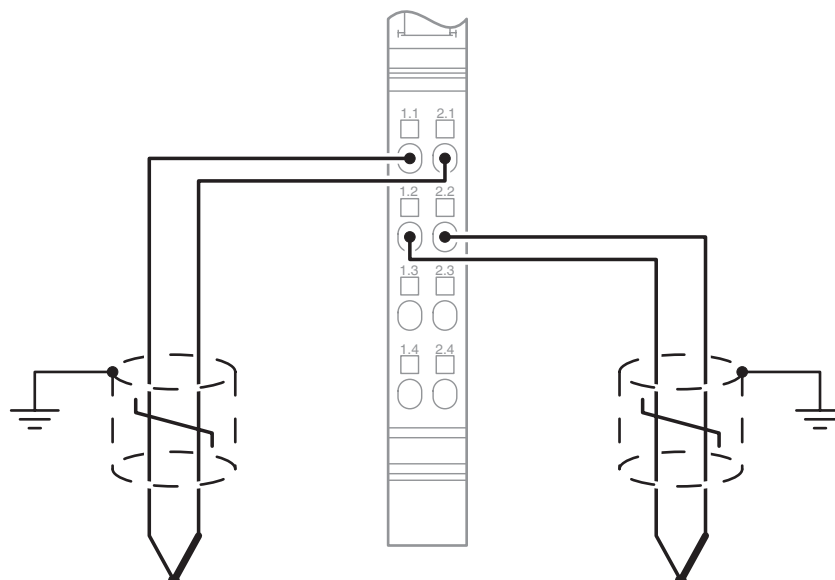
<https://www.phoenixcontact.com/us/products/2702504>

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

ECLASS

ECLASS-11.0	27242601
-------------	----------

UNSPSC

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

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



2702504

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

Accessories

SK 8 - Shield connection clamp

3025163

<https://www.phoenixcontact.com/us/products/3025163>



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

SK 14 - Shield connection clamp

3025176

<https://www.phoenixcontact.com/us/products/3025176>



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

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



2702504

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

SK 20 - Shield connection clamp

3025189

<https://www.phoenixcontact.com/us/products/3025189>



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

SK 35 - Shield connection clamp

3026463

<https://www.phoenixcontact.com/us/products/3026463>



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

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



2702504

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

AB-SK - Support bracket

3025341

<https://www.phoenixcontact.com/us/products/3025341>

Support bracket for busbars



AB-SK 65 - Support bracket

3026489

<https://www.phoenixcontact.com/us/products/3026489>

Support bracket, Bracket for busbars, set every 20 cm, width: 6.2 mm, height: 95.5 mm, number of positions: 1, color: gray, mounting type: DIN rail mounting



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

2702504

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



AB-SK/E - Support bracket

3026476

<https://www.phoenixcontact.com/us/products/3026476>

Support bracket, Bracket for busbars, set every 20 cm, depth: 20 mm, width: 56 mm, height: 10 mm, diameter: 4.5 mm, number of positions: 2, color: silver, mounting type: Direct mounting



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

0402174

<https://www.phoenixcontact.com/us/products/0402174>

Neutral busbar, DIN VDE 0611-4: 1991-02, color: silver



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



2702504

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

AK 4 - Connection terminal block

0404017

<https://www.phoenixcontact.com/us/products/0404017>



Connection terminal block, connection method: Screw connection, Rated cross section: 4 mm², cross section: 0.5 mm² - 6 mm², mounting: Neutral busbar, color: silver

AKG 4 GNYE - Connection terminal block

0421029

<https://www.phoenixcontact.com/us/products/0421029>



Connection terminal block, nom. voltage: 300 V, nominal current: 41 A, connection method: Screw connection, Rated cross section: 4 mm², cross section: 0.5 mm² - 6 mm², mounting: Neutral busbar, color: green-yellow

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

2702504

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



AKG 4 BK - Connection terminal block

0421032

<https://www.phoenixcontact.com/us/products/0421032>



Connection terminal block, nom. voltage: 300 V, nominal current: 41 A, connection method: Screw connection, Rated cross section: 4 mm², cross section: 0.5 mm² - 6 mm², mounting: Neutral busbar, color: black

IB IL SCN-8 - Inline connector

2726337

<https://www.phoenixcontact.com/us/products/2726337>

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



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

2702504

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



IB IL FIELD 2 - Marking field

2727501

<https://www.phoenixcontact.com/us/products/2727501>

Marking field, width: 12.2 mm



MTKD-FE/CUNI - Thermoelectric voltage terminal block pair

3100046

<https://www.phoenixcontact.com/us/products/3100046>



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

Phoenix Contact 2024 © - 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