

IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

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, Temperature measurement terminal, Analog UTH inputs: 4 (Type J), 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 J 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: -210 °C ... +1200 °C
- Connection of sensors in 2-conductor technology
- Diagnostic information in the process data word
- Diagnostic indicator

Commercial data

Item number	2702502
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DRI143
Catalog page	Page 119 (C-6-2019)
GTIN	4055626206059
Weight per piece (including packing)	87.9 g
Weight per piece (excluding packing)	69 g
Customs tariff number	85389099
Country of origin	DE

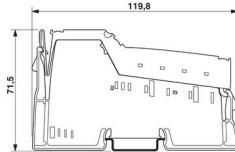
IB IL UTH 4/J-ECO - Temperature module

2702502

<https://www.phoenixcontact.com/pc/products/2702502>

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

Interfaces

Inline local bus

Number of interfaces	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 J)
Connection method	Inline connector
Connection technology	2-conductor
Note regarding the connection technology	shielded
A/D conversion time	typ. 120 ms

IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

A/D converter resolution	24 bit
Sensor types that can be used (TC)	J
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

Type	modular
Product type	I/O component
Product family	Inline
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

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

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

IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

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

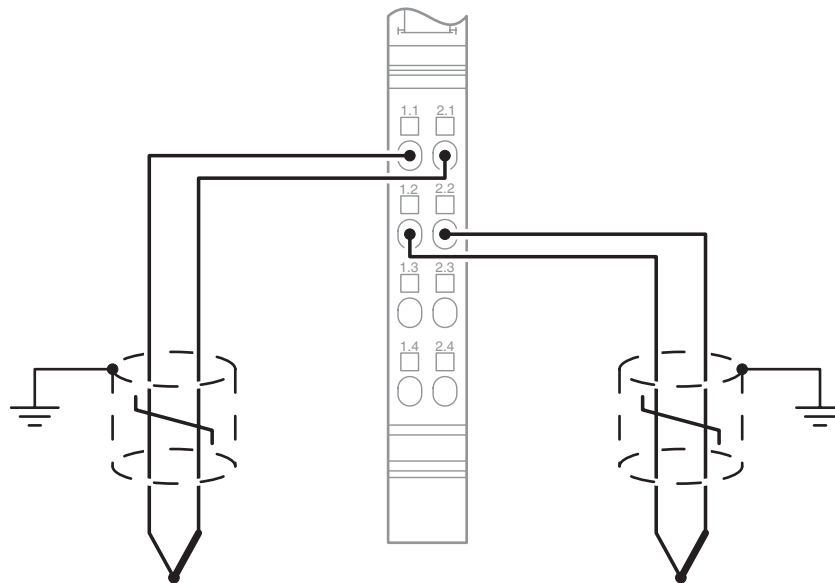
IB IL UTH 4/J-ECO - Temperature module

2702502

<https://www.phoenixcontact.com/pc/products/2702502>

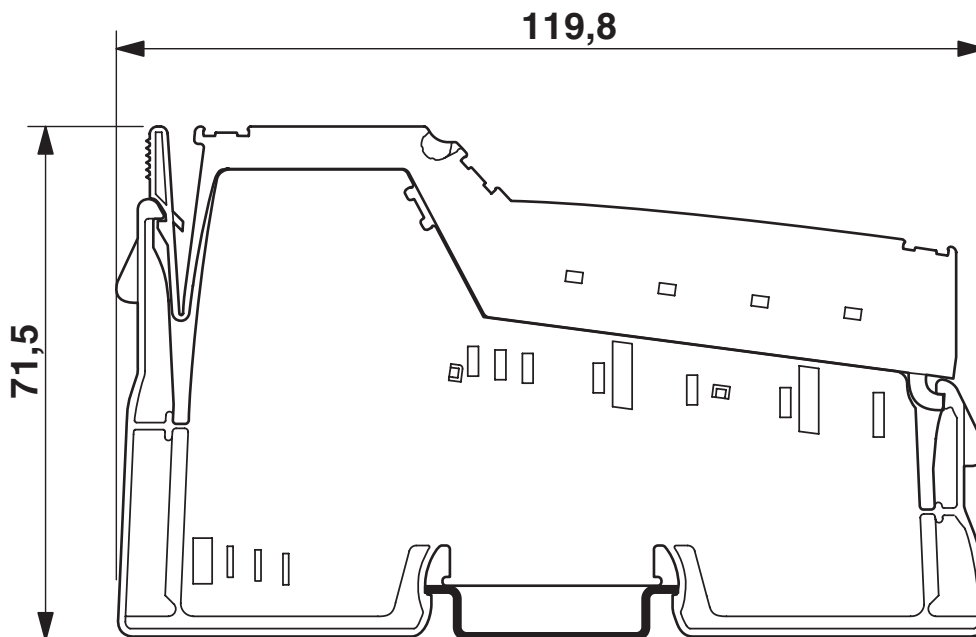
Drawings

Connection diagram



Connecting the sensors

Dimensional drawing



IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2702502>



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705

UAE-RoHS

Approval ID: 22-04-13090

cULus Listed

IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

Classifications

ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	27242601

ETIM

ETIM 9.0	EC001596
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

IB IL UTH 4/J-ECO - Temperature module



2702502

<https://www.phoenixcontact.com/pc/products/2702502>

Environmental product compliance

REACH SVHC

Lead 7439-92-1

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

info@phoenixcontact.com