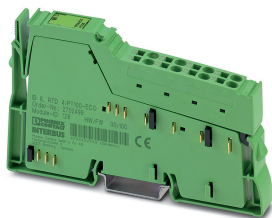


Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

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 RTD inputs: 4 (Pt 100), 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. It is used to acquire signals from resistive temperature sensors. 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 analog inputs
- Connection of sensors in 2-conductor technology
- Supported sensors: Pt 100
- Data format: standardized representation
- Diagnostic information in the process data word



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626203195

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 terminal - IB IL RTD 4/PT100-ECO - 2702499

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
Color	green
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
Number	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. 56 mA
	max. 85 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. 7.3 mA
	max. 14 mA
Power consumption	typ. 0.67 W

Analog inputs

Input name	Analog RTD inputs
Description of the input	Inputs for resistive temperature sensors
Number of inputs	4 (Pt 100)
Connection method	Inline connector
Connection technology	2-conductor
Note regarding the connection technology	shielded
Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Technical data

Analog inputs

Nominal value of the current sources	1 mA (pulsed current, the data is valid during the sampling phase)
A/D conversion time	typ. 120 ms
A/D converter resolution	24 bit
Process data update	< 10 ms
Type of protection	Overload protection
	Transient protection
Data formats	Standardized representation
Input filter time	120 ms (per channel)
Input filter	Digital filter

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 ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: ± 1 kV/ ± 1 kV (symmetrical/asymmetrical), shielded I/O cables: ± 1 kV
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
Interference emission	Noise emission test as per EN 61000-6-4 Class A
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

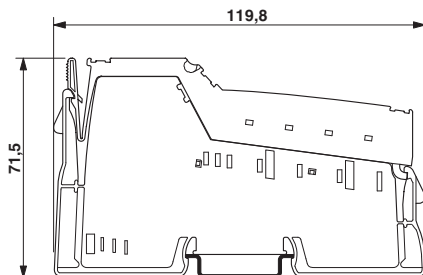
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

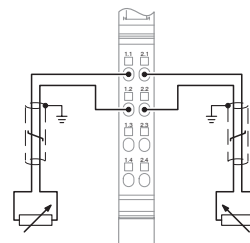
Drawings

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Dimensional drawing



Connection diagram



Connecting the sensors

Classifications

eCl@ss

eCl@ss 10.0.1	27242601
eCl@ss 11.0	27242601
eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242600
eCl@ss 7.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC001599
ETIM 6.0	EC001596
ETIM 7.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
-----------	--	---	---------------

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
------------	--	---	---------------

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

Accessories

Accessories

Installation terminal block

Connection terminal block - AKG 4 GNYE - 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

Connection terminal block - AKG 4 BK - 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

Labeling panel

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Accessories

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



Neutral busbar, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, color: silver

Pick-off terminal block

Connection terminal block - AK 4 - 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

Plug

Inline connector - IB IL SCN-8 - 2726337

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



Shield connection clamp

Shield connection clamp - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Accessories

Shield connection clamp - SK 14 - 3025176



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

Shield connection clamp - SK 20 - 3025189



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

Shield connection clamp - SK 35 - 3026463



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

Shield connection clamp - SKS 8 - 3240210



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 14 - 3240211



Shield connection terminal block, for applying the shield to busbars

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Accessories

Shield connection clamp - SKS 20 - 3240212



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 8-D - 3240213



Shield connection terminal block, for applying the shield directly to the conductive mounting plates

Shield connection clamp - SKS 14-D - 3240214



Shield connection terminal block, for applying the shield directly to the conductive mounting plates

Shield connection clamp - SKS 20-D - 3240215



Shield connection terminal block, for applying the shield directly to the conductive mounting plates

Shield connection clamp - SKS 8-NS35 - 3240216



Shield connection terminal block, for applying the shield to busbars

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Accessories

Shield connection clamp - SKS 14-NS35 - 3240217



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 20-NS35 - 3240218



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 8-SNS35 - 3062786



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 14-SNS35 - 3062799



Shield connection terminal block, for applying the shield to busbars

Shield connection clamp - SKS 20-SNS35 - 3062809



Shield connection terminal block, for applying the shield to busbars

Support

Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

Accessories

Support bracket - AB-SK - 3025341

Support bracket for busbars



Support bracket - AB-SK 65 - 3026489

Support bracket, Bracket for busbars, set every 20 cm, length: 95.5 mm, width: 6.2 mm, number of positions: 1, color: gray



Support bracket - AB-SK/E - 3026476

Support bracket, Bracket for busbars, set every 20 cm, length: 10 mm, width: 56 mm, height: 20 mm, number of positions: 2, color: silver



Terminal marking

Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72



Phoenix Contact 2021 © - 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>