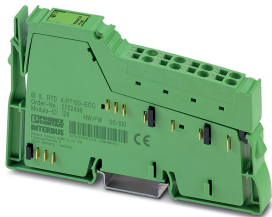


Inline terminal - IB IL RTD 4/PT100-ECO - 2702499

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Inline ECO, Temperature measurement terminal, Analog RTD inputs: 4 (Pt 100), connection method: 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
- Diagnostic indicator



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 203195
GTIN	4055626203195
Weight per Piece (excluding packing)	80.000 g
Custom tariff number	85389099
Country of origin	Germany

Technical data

Note

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Technical data

Note

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

Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

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

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Technical data

Inline potentials

	max. 14 mA
Power consumption	typ. 0.67 W

Analog inputs

Number of inputs	4 (Pt 100)
Input name	Analog RTD inputs
Description of the input	Inputs for resistive temperature sensors
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)
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)

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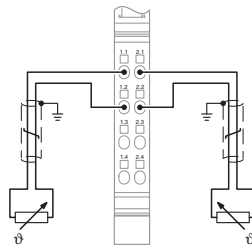
Technical data

Environmental Product Compliance

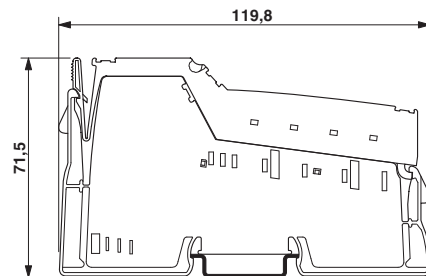
REACH SVHC	Lead 7439-92-1
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Drawings

Connection diagram



Dimensional drawing



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 8.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC001599
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
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Classifications

UNSPSC

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

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

Accessories

Installation terminal block

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Accessories

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: green-yellow

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: black

Labeling panel

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, width: 10 mm, height: 3 mm, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, length: 1000 mm, color: silver

Pick-off terminal block

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Accessories

Connection terminal block - AK 4 - 0404017



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, 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

Shield connection clamp - SK 14 - 3025176



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

Shield connection clamp - SK 20 - 3025189



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

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Accessories

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

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

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

Accessories

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

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

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

Accessories

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

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

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Accessories

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