PHŒNIX CONTACT

Inline function terminal - IB IL TEMP 2 RTD-XC-PAC - 2701217

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Inline analog input terminal, extreme conditions version, complete with accessories (connector and labeling field), 2 inputs, RTD (resistance temperature detector), 2, 3, 4-conductor connection technology

The figure shows the standard item

Product Description

The terminal is designed for use within an Inline station.
It is used to acquire signals from resistive temperature sensors.
The terminal supports all common platinum and nickel sensors according to DIN EN 60751 and SAMA.
Cu10, Cu50, and Cu53 sensors as well as KTY81 and KTY84 sensors are also supported.
The measuring temperature is represented by 16-bit values in two process data words (one word per channel).

Your advantages

☑ Two inputs for resistive temperature sensors

☑ Pt, Ni, Cu, KTY sensor types according to DIN and SAMA

☑ Connection of sensors in 2, 3, and 4-wire technology

☑ The channels are parameterized independently of one another via the bus system

☑ Measured values can be represented in three different formats

☑ Measured value acquisition with 16-bit resolution

☑ Channel scout for optical channel identification

☑ Can be used under extreme ambient conditions

☑ Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)

☑ Coated PCBs

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356728829
Weight per Piece (excluding packing)	67.000 g
Custom tariff number	85389091
Country of origin	Germany
Note	Made to Order (non-returnable)

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Technical data

Note

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

Dimensions

Width	12.2 mm
Height	136.8 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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	67 g
Note on weight specifications	with connector
Operating mode	Process data operation with 2 words

Interfaces

Designation	Inline local bus
No. of channels	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. 43 mA
	max. 60 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. 11 mA
	max. 18 mA
Power consumption	typ. 587 mW

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Technical data

Analog inputs

Number of inputs	2
Input name	Analog RTD inputs
Description of the input	Input for resistive temperature sensors
Connection method	Spring-cage connection
Connection technology	2, 3, 4-wire
Note regarding the connection technology	shielded
Sensor types (RTD) that can be used	Pt, Ni, KTY, Cu sensors, linear resistors
Linear resistance measuring range	0 Ω ... 400 Ω
	0 Ω ... 4 kΩ
Measuring principle	Successive approximation
Measured value representation	16 bits two's complement and other
A/D conversion time	typ. 120 µs (per channel)
A/D converter resolution	16 bit (15 bit + sign bit)
Process data update	32 ms (both channels with 3-wire technology)

Electrical isolation

Test section	7.5 V supply (bus logics)/24 V analog supply (analog I/O) 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logics) / functional earth ground 500 V AC 50 Hz 1 min.
	24 V analog supply (analog I/O) / functional earth ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Environmental Product Compliance

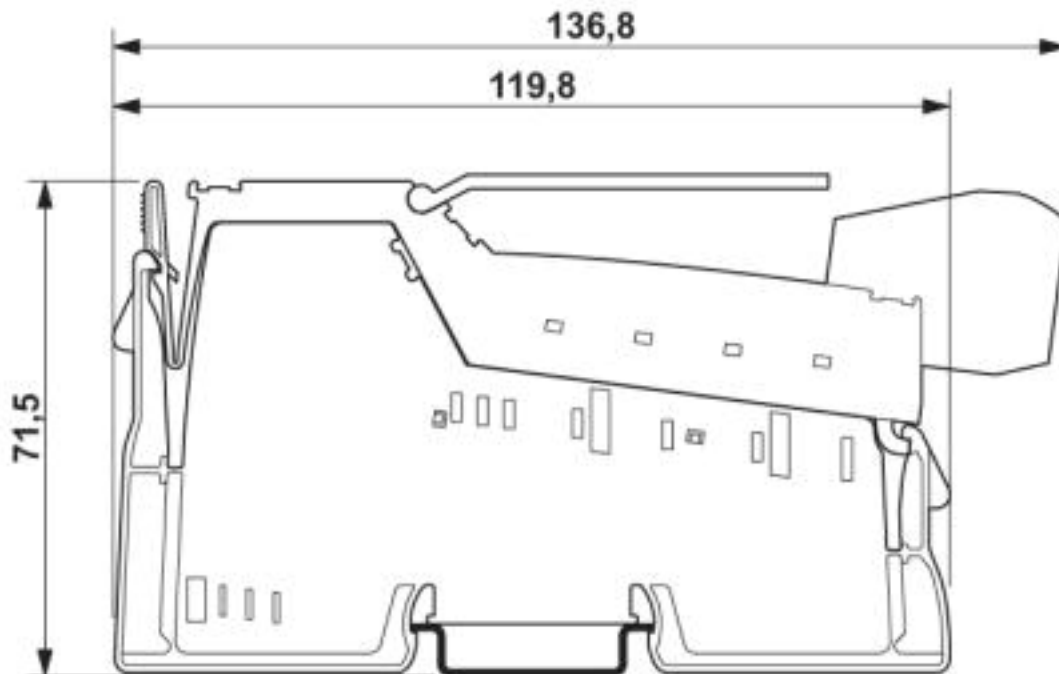|	
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

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Connection diagram
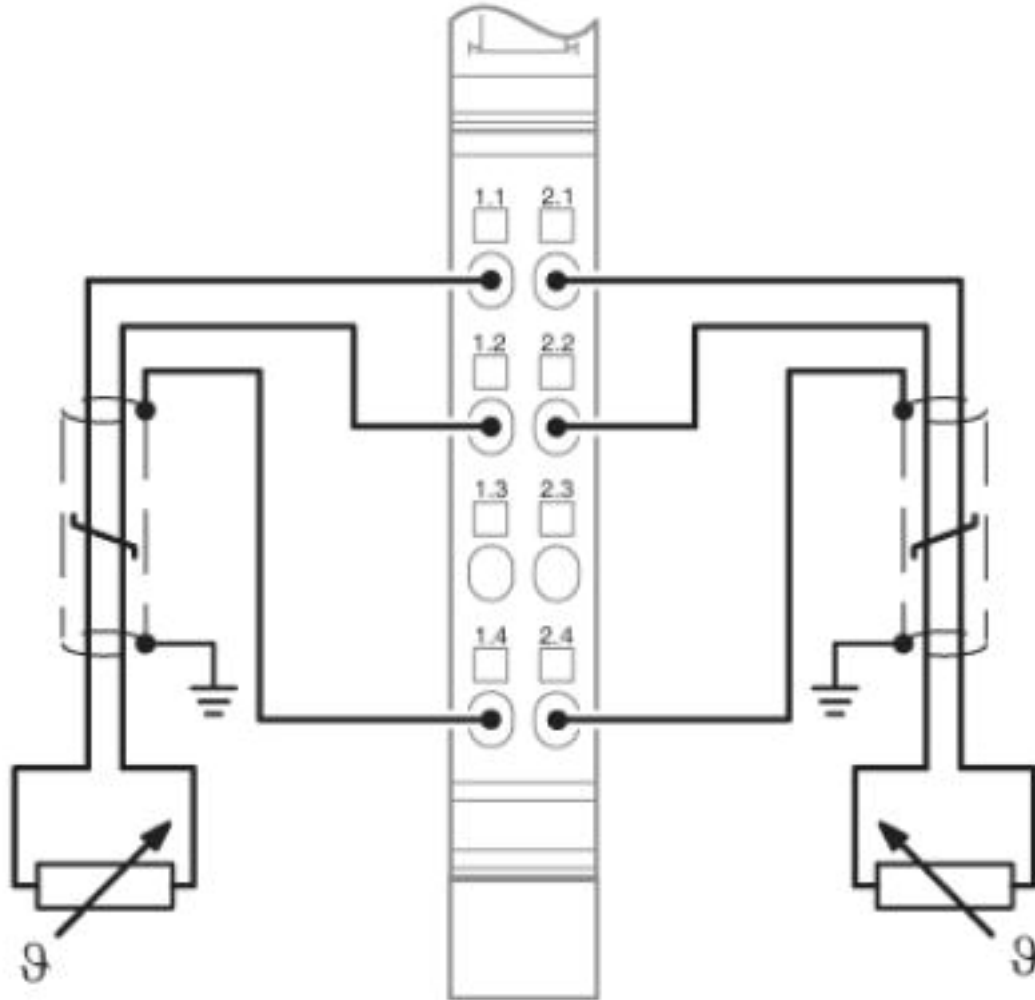
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Dimensional drawing

Classifications

eCl@ss

eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
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
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404

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Classifications

UNSPSC

UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

cULus Recognized	

Accessories

Accessories
Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm

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Accessories

Plug

Inline shield connector - IB IL SCN-6 SHIELD - 2726353

Inline shield connector

Inline shield connector - IB IL SCN 6-SHIELD-TWIN - 2740245

Inline shield connector

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