Inline function terminal - IB IL TEMP 4/8 RTD-PAC - 2863915

Inline analog input terminal, complete with accessories (connector and labeling field), 8 channels, RTD (resistance temperature detector), 2, 3-wire connection method

Product Description

This terminal block provides you with an inexpensive 8-channel input module for resistive temperature sensors.The module supports platinum and nickel sensors in acc. with DIN and SAMA directives. With the platinum sensors, not only Pt 100, Pt 500 and Pt 1000 are supported, but also the Pt 10000 (e.g. from building automation) and numerous other measuring sensors. The sensors are connected using the 2 or 3-wire system.The measured temperature is displayed via 16-bit values per channel (2 x 4 channels in process data multiplex) or via 16 bits per channel with PCP communication.Software library CD "CD AS SW LIB" contains function blocks and sample programs for analog value processing.The Inline terminal can be identified using hinged labeling fields. The fields have insert cards that can be labeled individually to suit the application. Zack marker strip ZBF 6... or Zack marker sheet ZBFM 6... can also be used for labeling the terminal points.

Product Features

- Pt, Ni, Cu, KTY sensor types according to DIN and SAMA
- Measured value acquisition with 16-bit resolution
- Channel scout for optical channel identification
- Connection of sensors in 2, 3, and 4-wire technology

Key commercial data

package_quantity	1
GTIN	4017918955410

Technical data

Note

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

Dimensions

Width	48.8 mm
Height	136.8 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °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)

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Technical data

Ambient conditions

Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20

General

Weight	190 g
Mounting type	DIN rail
Operating mode	Process data mode with 5 words/1 word PCP
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
Test section	7.5 V supply (bus logic)/±15.5 V, ±5 V analog supply (analog I/O) 500 V AC 50 Hz 1 min
Test section	7.5 V supply (bus logics) / functional earth ground 500 V AC 50 Hz 1 min
Test section	±15.5 V, ±5 V analog supply (analog I/O)/functional earth ground 500 V AC 50 Hz 1 min

Interfaces

Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/s
Transmission physics	Copper

Inline potentials

Communications power U_L	7.5 V DC (via voltage jumper)
Current consumption from U_L	typ. 75 mA
I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	typ. 28 mA
Power consumption	typ. 1.24 W

Analog inputs

Number of inputs	8
Input name	Analog RTD inputs
Description of the input	Input for resistive temperature sensors
Connection method	Spring-cage connection
Connection method	2, 3-conductor
Sensor types (RTD) that can be used	Pt, Ni, KTY, Cu sensors, linear resistors
Linear resistance measuring range	0 Ω ... 400 Ω
Linear resistance measuring range	0 Ω ... 20 kΩ
Measuring principle	Successive approximation
Measured value representation	16 bits (15 bits + sign bit)
A/D conversion time	max. 10 µs
Process data update	6 ms (Up to 230 ms possible depending on operating mode)
Data formats	IB IL, IB ST, S7 compatible
Precision	typ. 0.06 %

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classifications

eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242601
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

approvals

UL Listed / cUL Listed / LR / GL / BV / DNV / ABS / RINA / GL-SW / BSH / BSH / UL Listed / cUL Listed / LR / GL / BV / DNV / ABS / RINA / GL-SW / GL / cULus Listed /

Approval details

UL Listed

cUL Listed

LR

GL

BV

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approvals

DNV

ABS

RINA

GL-SW

BSH

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accessories

Plug

IB IL SCN 6-SHIELD-TWIN - 2740245

IB IL SCN-6 SHIELD - 2726353

Labeling panel

IB IL FIELD 2 - 2727501

Terminal marking

ESL 62X10 - 0809492

Device parameterization

AX+ BASIC - 2985068

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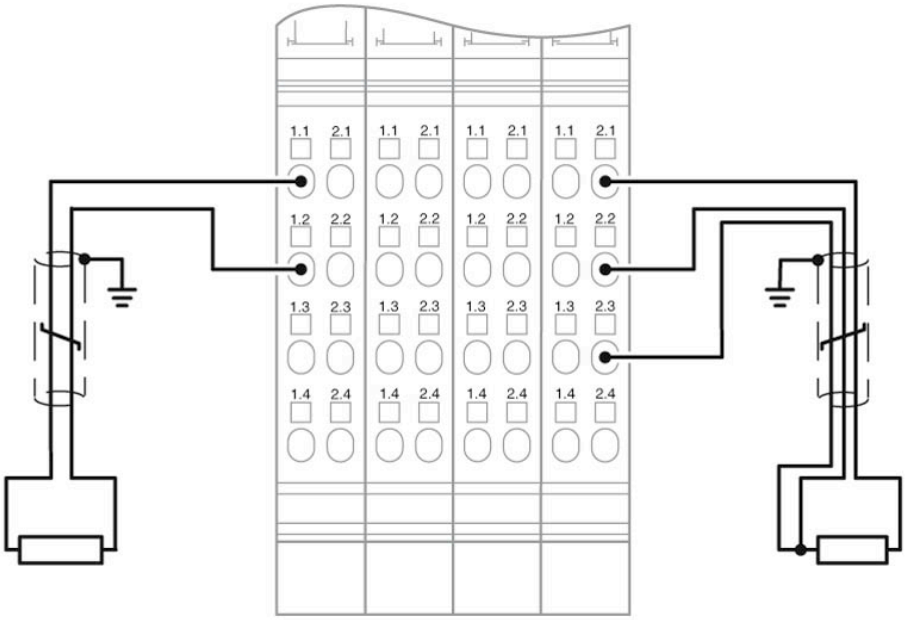
accessories

AX DTM LIB - 2988065

Drawings

Connection diagram



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Dimensioned drawing