IB IL TEMP 4/8 RTD-PAC - Temperature module

2863915

https://www.phoenixcontact.com/us/products/2863915

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 analog input terminal, complete with accessories (connector and marking field), 8 channels, RTD (resistance temperature detector), 2-, 3-conductor connection technology

Product description

The terminal is designed for use within an Inline station. This terminal provides an 8-channel input module for resistance temperature detectors.

Your advantages

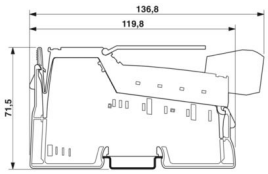
- Pt, Ni, Cu, KTY sensor types according to DIN and SAMA
- 8 inputs for resistive temperature sensors and linear resistors up to 20 kΩ
- Connection of sensors in 2- and 3-conductor technology
- Communication either via process data or parameter channel (PCP)
- The channels are parameterized independently of one another via the bus system
- Robust inputs ideal for use in harsh industrial environments with electromagnetic interference
- Measured values can be represented in three different formats
- Temperature and resistance measurement in the millisecond range
- Diagnostic and status indicators

Commercial data

Item number	2863915
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI143
Catalog page	Page 141 (C-6-2019)
GTIN	4017918955410
Weight per piece (including packing)	256.9 g
Weight per piece (excluding packing)	190 g
Customs tariff number	85389099
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	136.8 mm
Depth	71.5 mm

Interfaces

Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

System properties

Module

ID code (dec.)	223
ID code (hex)	DF
Length code (hex)	05
Length code (dec)	05
Process data channel	80 bit
Input address area	10 Byte
Output address area	10 Byte
Register length	96 bit
Required parameter data	31 Byte
Required configuration data	5 Byte

Input data

Analog

Input name	Analog RTD inputs
Description of the input	Input for resistive temperature sensors
Number of inputs	8
Connection method	Spring-cage connection
Connection technology	2, 3-conductor
A/D conversion time	max. 10 µs
Sensor types (RTD) that can be used	Pt, Ni, KTY, Cu sensors, linear resistors

Data formats	IB IL, IB ST, S7 compatible
Measuring principle	Successive approximation
Measured value representation	16 bits (15 bits + sign bit)
Linear resistance measuring range	0 Ω ... 400 Ω
	0 Ω ... 20 kΩ
Process data update	6 ms (Up to 230 ms possible depending on operating mode)

Product properties

Type	modular
Product type	I/O component
Product family	Inline
Scope of delivery	including Inline connectors and marking fields
Operating mode	Process data mode with 5 words/1 word PCP

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	0.59 W

Potentials

Power consumption	typ. 1.24 W

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 100 mA
	typ. 75 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. 55 mA
	typ. 28 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 7.5 V supply (bus logic)/±15.5 V, ±5 V analog supply (analog I/O)	500 V AC, 50 Hz, 1 min.
Test voltage: 7.5 V supply (bus logic)/functional ground	500 V AC, 50 Hz, 1 min.
Test voltage: ±15.5 V, ±5 V analog supply (analog I/O)/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 mm² ... 1.5 mm²
Conductor cross section flexible	0.08 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16
Stripping length	8 mm

Inline connector

Connection method	Spring-cage connection
Conductor cross section, rigid	0.08 mm² ... 1.5 mm²
Conductor cross section, flexible	0.08 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °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 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Mounting

Mounting type	DIN rail mounting

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001596

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

REACh SVHC	Lead 7439-92-1

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com