

# Inline function terminal - IB IL TEMP 4/8 RTD-2MBD-PAC - 2878612

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

## 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.

## Why buy this product

- 8 inputs for resistive temperature sensors and linear resistors up to 20 kΩ
- Connection of sensors in 2 and 3-wire technology
- Communication either via process data or parameter channel (PCP)
- Channels are configured independently of one another using the bus system
- Measured values can be represented in three different formats
- Temperature measurement in the millisecond range
- Diagnostic and status indicators



## Key commercial data

Packing unit	1 pc
GTIN	4 017918 980740
Weight per Piece (excluding packing)	190.0 g
Custom tariff number	85389091
Country of origin	Germany
Note	Made to Order (non-returnable)

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

### General

Net 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
	7.5 V supply (bus logics) / functional earth ground 500 V AC 50 Hz 1 min
	±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	2 MBit/s
Transmission physics	Copper

### Inline potentials

Communications power $U_L$	7.5 V DC (via voltage jumper)
Current consumption from $U_L$	max. 120 mA
	typ. 100 mA
I/O supply voltage $U_{ANA}$	24 V DC
Current consumption from $U_{ANA}$	max. 55 mA
	typ. 41 mA
Power consumption	typ. 1.75 W

### Analog inputs

Number of inputs	8 (for resistance temperature detectors)
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### Analog inputs

Input name	Analog RTD inputs
Description of the input	2 x 4 channels multiplex, 8 PCP channels or 4 channels without multiplex
Connection method	Spring-cage connection
	2, 3-conductor
Sensor types (RTD) that can be used	Pt, Ni, KTY sensors, linear resistors
Linear resistance measuring range	0 Ω ... 400 Ω
	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 %

## 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

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## Approvals

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Approvals

UL Listed / cUL Listed / cULus Listed

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Ex Approvals

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Approvals submitted

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## Approval details

UL Listed 

cUL Listed 

cULus Listed 

## Accessories

Accessories

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



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Plug

# Inline function terminal - IB IL TEMP 4/8 RTD-2MBD-PAC - 2878612

## Accessories

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



Inline shield connector

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



Inline shield connector

## Terminal marking

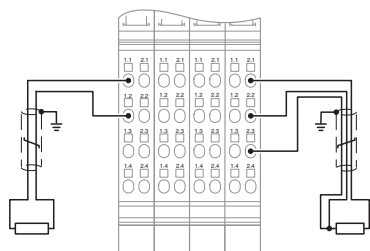
Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm



## Drawings

Connection diagram



Dimensioned drawing

