IB IL AI/TEMP 4 RTD-PAC - Analog module

2897952

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CRA-READY



Inline, Analog input terminal, Analog inputs: 4, 0 V ... 10 V, connection technology: 2-conductor, Analog RTD inputs: 4, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The terminal is designed for use within an Inline station. The terminal block has four inputs that you can configure (either individually or independently of one another) for measuring voltages or resistances, as well as for resistance temperature detectors. The sensors are connected using 2-conductor technology, so that a nominal resistance of at least 1000 Ω is recommended when sensors with a relatively small temperature coefficient (e.g., platinum sensors) are used. Resistance measurement with conversion into temperature values can be used for temperature measurement with NTC resistors. The advantage of these resistors is their large temperature coefficient.

Your advantages

- 4 measurement inputs, configurable as desired
- Voltage inputs 0 V ... 10 V
- Inputs for resistance measurements up to 300 kΩ
- Inputs for temperature measurements
- Connection of sensors in 2-conductor technology
- Communication via process data
- Channels are parameterized independently of one another via the bus system

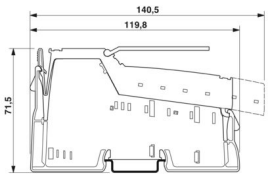
ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2897952
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR18
Product key	DRHABA
GTIN	4046356331739
Weight per piece (including packing)	89.2 g
Weight per piece (excluding packing)	68 g
Customs tariff number	85389099
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	140.5 mm
Depth	71.5 mm

Notes

Note on application

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	green (RAL 6021)

Interfaces

Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

Programming data

Length code (hex)	02
ID code (dec.)	95
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Parameter channel (PCP)	0 Byte

Register length (bus)	32 bit

Fieldbus data telegram

Required parameter data	1 Byte
Required configuration data	5 Byte

Input data

Analog:

Input name	Analog inputs
Number of inputs	4
Connection technology	2-conductor
Note regarding the connection technology	shielded
Process data update	600 ms (for all four channels)
A/D conversion time	150 ms
A/D converter resolution	15 bit
Limit frequency (3 dB)	6.6 Hz
Measured value representation	16 bits (15 bits + sign bit)
Data formats	IB IL, IB ST, standardized representation, S7 compatible
Voltage input signal	0 V ... 10 V
Tolerance, absolute (V)	see tables for tolerance values
Tolerance, relative	see tables for tolerance values
Filtering	None or mean value generation over 8 or 32 measured values

Analog:

Input name	Analog RTD inputs
Number of inputs	4
Connection technology	2-conductor
Note regarding the connection technology	shielded
A/D converter resolution	15 bit
Sensor types (RTD) that can be used	Pt, Ni, KTY sensors
Data formats	IB IL, IB ST, standardized representation, S7 compatible
Measured value representation	16 bits (15 bits + sign bit)
Input filter time	150 ms
	1200 ms
	4800 ms (adjustable)
Linear resistance measuring range	0 Ω ... 3 kΩ
	0 Ω ... 300 kΩ
Process data update	600 ms (for all four channels)

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Installation location	Control cabinet
Scope of supply	including Inline connectors and marking fields

Operating mode	Process data operation with 2 words
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
Diagnostics messages	I/O error Error message in the process data
	User error Error message in the process data

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	0.49 W

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 65 mA
	typ. 60 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: Analog inputs/U_L, U_M, U_S, U_{ANA}	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector

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)

Mechanical test

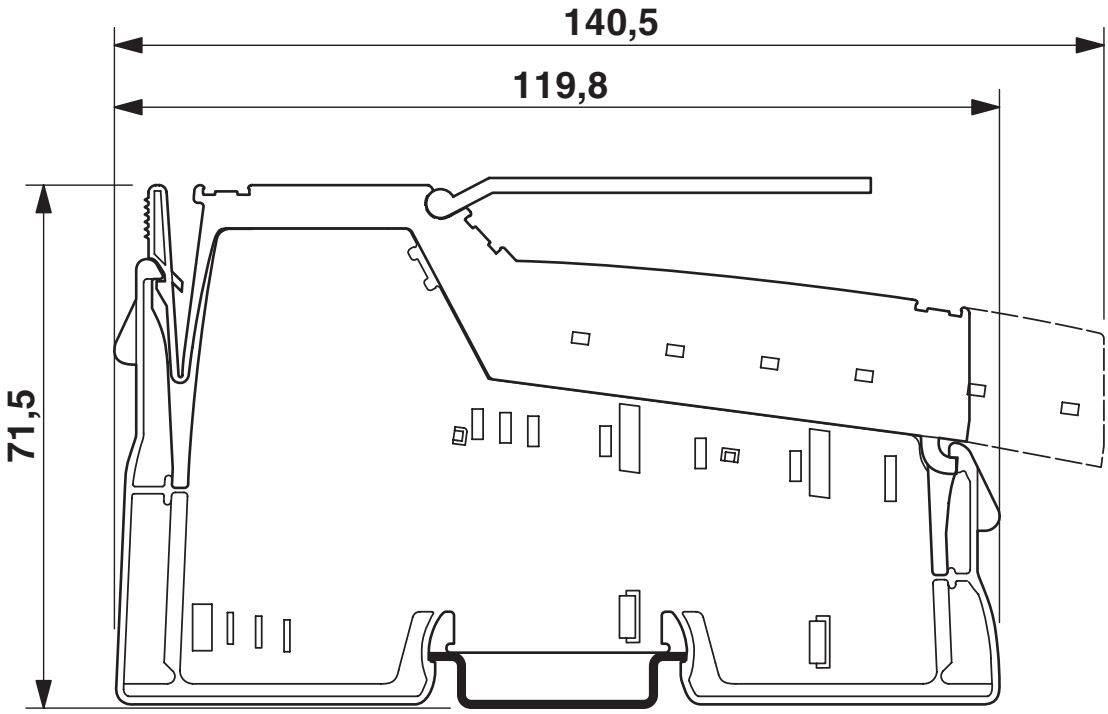
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g

Standards and regulations

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

Drawings

Dimensional drawing



Dimensions (in mm)

Classifications

ECLASS

ECLASS-13.0	27242601
ECLASS-15.0	27242601

ETIM

ETIM 10.0	EC001596

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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