

I/O extension module - RAD-PT100-4-IFS - 2904035

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Temperature I/O extension module with 4 PT 100 inputs (-50...+250 °C), with screw connection, including DIN rail connector

Why buy this product

- Extended temperature range, -40°C ... +70°C
- Easy module replacement even during operation (hot swap)
- 4 Pt 100 inputs (-50 ... 250°C)
- Suitable for ATEX zone 2
- Easy startup via thumbwheel



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 781961

Technical data

Note

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

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
	-40 °F ... 158 °F

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Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 85 °C
	-40 °F ... 185 °F
Permissible humidity (operation)	20 % ... 85 %
Permissible humidity (storage/transport)	20 % ... 85 %
Altitude	2000 m
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Shock	16g, 11 ms

General

Overvoltage category	II
Mounting position	any
Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
Degree of pollution	2
Housing material	PA 6.6-FR
Flammability rating according to UL 94	V0
MTTF	1249 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	506 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	194 Years (Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Supply

Supply voltage range	19.2 V DC ... 30.5 V DC (DIN rail connector)
Max. current consumption	≤ 38 mA (At 24 V DC, at 25°C)
Transient surge protection	Yes

Analog inputs

Description of the input	Pt 100 input
Number of inputs	4
Temperature measuring range	-50 °C ... 250 °C
Sensor input current	1 mA (constant)
Max. permissible overall conductor resistance	25 Ω
Measuring accuracy	0.1% (From the measuring range final value)
Connection method	2, 3-wire
Process data channel	16 Bit (per channel)

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24

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Connection data

Conductor cross section AWG max.	14
Stripping length	7 mm
Tightening torque	0.6 Nm
Screw thread	M3

Status indicator

Status display	Green LED (supply voltage, PWR)
	Green LED (bus communication, DAT)
	Red LED (periphery error, ERR)

Approvals and conformance

Conformance	CE-compliant
IECEX	Ex nA IIC T4 Gc
UL, USA / Canada	UL 508 Listed
Standard designation	EMC Directive 2004/108/EC
Standards/regulations	EN 61000-6-2
Standard designation	EMC Directive 2004/108/EC
Standards/regulations	EN 61000-6-4
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN 60079-0
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN-60079-15

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC (valid until 19.04.2016) / 2014/30/EU (valid from 20.04.2016)
Standard designation	EMC Directive 2004/108/EC
Standards/regulations	EN 61000-6-2
Standard designation	EMC Directive 2004/108/EC
Standards/regulations	EN 61000-6-4
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN 60079-0
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN-60079-15
Shock	16g, 11 ms
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Flammability rating according to UL 94	V0
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
IECEX	Ex nA IIC T4 Gc
UL, USA / Canada	UL 508 Listed

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Standards and Regulations

	Class I, Div. 2, Groups A, B, C, D T4A
	Class I, Zone 2, IIC T4

Classifications

eCl@ss

eCl@ss 4.0	27230207
eCl@ss 4.1	27250312
eCl@ss 5.0	27242208
eCl@ss 5.1	27242208
eCl@ss 6.0	27242208
eCl@ss 7.0	27242208
eCl@ss 8.0	27242601

ETIM

ETIM 3.0	EC001423
ETIM 4.0	EC001446
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	43223108
UNSPSC 11	39121008
UNSPSC 12.01	43223108
UNSPSC 13.2	43223108

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

ATEX / UL Listed / cUL Listed / IECEx

Approvals submitted

Approval details

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Approvals

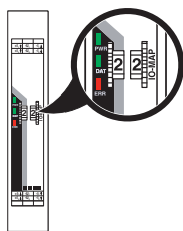
UL Listed 

cUL Listed 

cULus Listed 

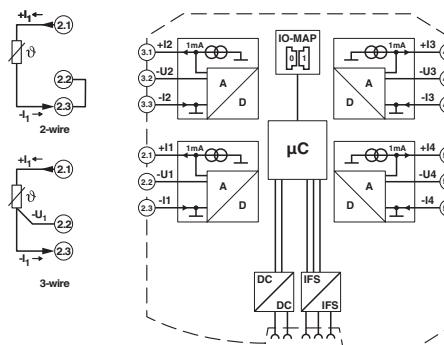
Drawings

Schematic diagram

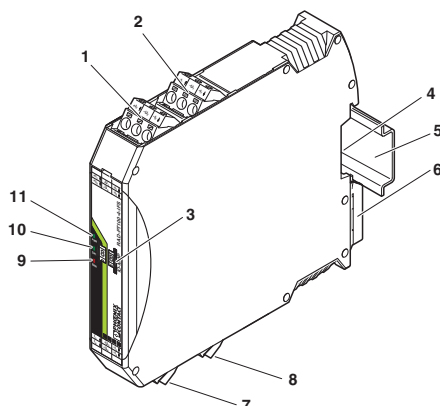


Thumb wheel

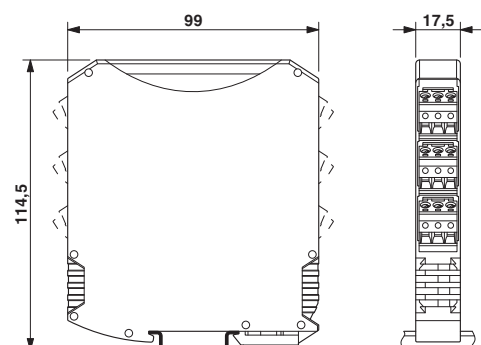
Block diagram



Schematic diagram



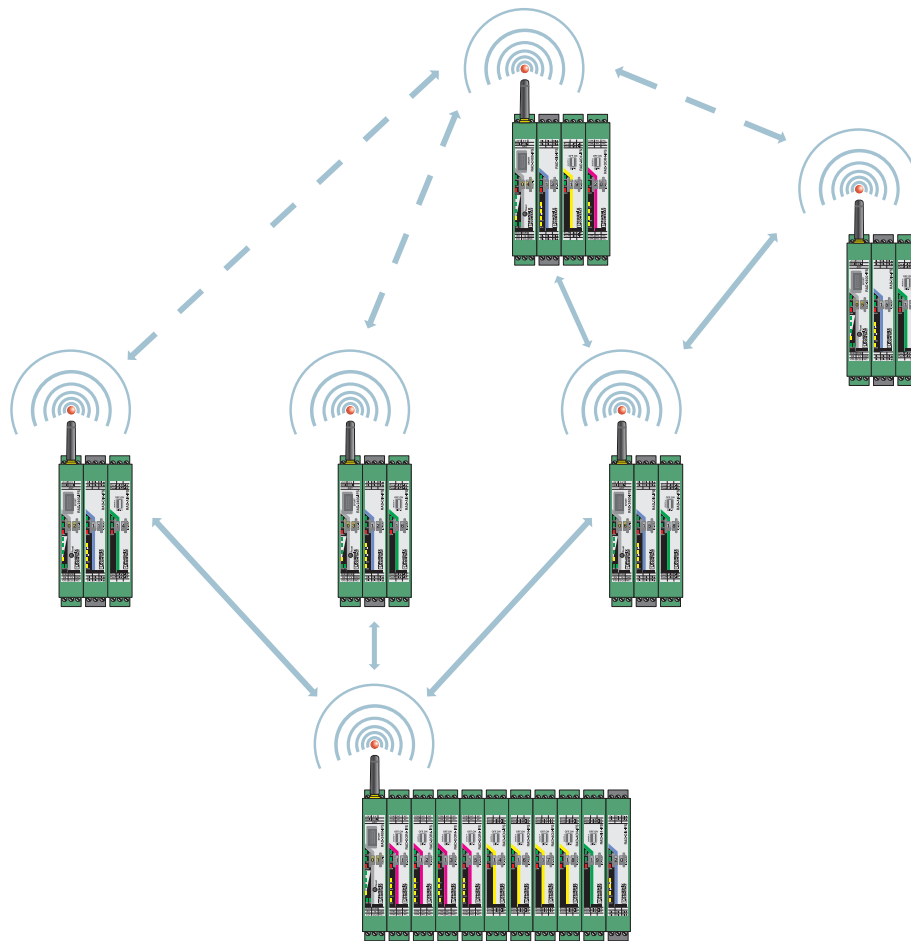
Dimensional drawing



Function elements

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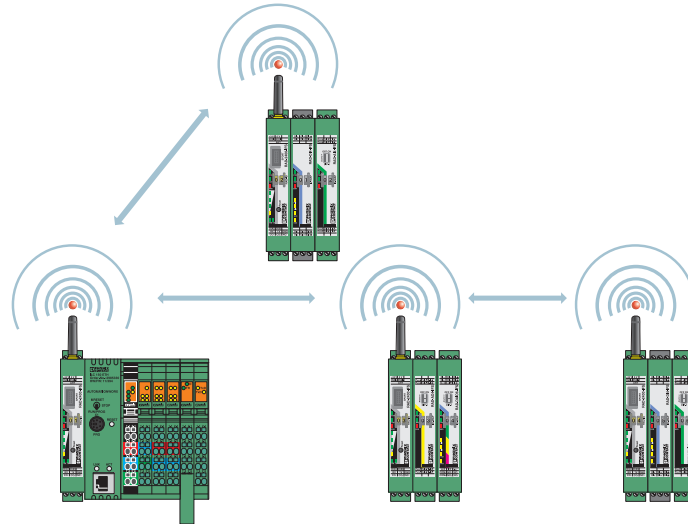
Application drawing



Wireless module in I/O data mode

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Application drawing



Wireless module in PLC/Modbus RTU mode

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