

Resistance thermometer measuring transducer - MINI MCR-SL-PT100-UI-NC - 2864273

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MCR temperature transducer for Pt 100 temperature sensors, configured via DIP switch, with screw connection, not pre-configured

Product Description

The 6.2 mm wide MINI MCR-SL-PT100-UI... is a configurable 3-way isolated temperature measuring transducer. It is suitable for the connection of Pt 100 resistance thermometers according to IEC 60751 in 2, 3 and 4-wire connection methods. On the output side, the analog standard signals 0...20 mA, 4...20 mA, 0...10 V, 0...5 V, 1...5 V, 10...0 V, 20...0 mA or 20...4 mA are available, electrically isolated. The DIP switches are accessible on the side of the housing and allow the following parameters to be configured:– Connection method– Temperature range to be measured– Output signal as well– Fault evaluation type Power (19.2 V DC to 30 V DC) can be supplied through connection terminal blocks on the modules or in conjunction with the DIN rail connector.

Product Features

- Power supply possible via the foot element (T-connector)
- For 2, 3 or 4-wire Pt 100 sensors according to IEC 60751
- Error indication via diagnostic LED and analog signal
- Input and output signals can be configured via DIP switches
- Highly-compact temperature transducer for electrical isolation, conversion, amplification, and filtering of
- 3-way isolation
- Pt 100 signals to create standard signals
- Temperature measuring range of -150°C to +850°C



Key commercial data

package_quantity	1
GTIN	4017918956561

Technical data

Note

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

Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

Resistance thermometer measuring transducer - MINI MCR-SL-PT100-UI-NC - 2864273

Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

Input data

Configurable/programmable	Yes
Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Sensor input current	1 mA (constant)
Connection method	2, 3, 4-wire

Output data

Configurable/programmable	Yes, unconfigured
Voltage output signal	0 V ... 10 V
Voltage output signal	10 V ... 0 V
Voltage output signal	0 V ... 5 V
Voltage output signal	1 V ... 5 V
Current output signal	0 mA ... 20 mA
Current output signal	4 mA ... 20 mA
Current output signal	20 mA ... 0 mA
Current output signal	20 mA ... 4 mA
Max. output voltage	approx. 12.5 V
Max. output current	23 mA
Short-circuit current	approx. 10 mA
Load/output load voltage output	≥ 10 kΩ
Load/output load current output	< 500 Ω (at 20 mA)

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The T connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715))
Max. current consumption	< 21 mA (at 24 V DC)
Power consumption	< 500 mW

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²

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Technical data

Connection data

Stripping length	12 mm
Screw thread	M3

General

No. of channels	1
Maximum temperature coefficient	< 0.02 %/K
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	2
Rated insulation voltage	50 V AC/DC
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	green
Housing material	PBT
Mounting position	any
Assembly instructions	The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715.
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

classifications

eCl@ss

eCl@ss 4.0	27200206
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Resistance thermometer measuring transducer - MINI MCR-SL-PT100-UI-NC - 2864273

classifications

eCl@ss

eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200206
eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27200206

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC001446

UNSPSC

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

approvals

UL Listed / cUL Listed / ATEX / cULus Listed / UL Recognized / cUL Recognized / GL / cULus Recognized /

Approval details

UL Listed	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Listed	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

Resistance thermometer measuring transducer - MINI MCR-SL-PT100-UI-NC - 2864273

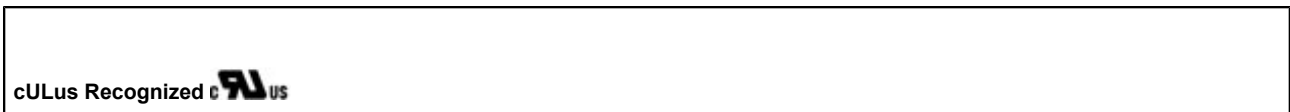
approvals



UL Recognized	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Recognized	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

GL



accessories

DIN rail connector

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



Power module

Resistance thermometer measuring transducer - MINI MCR-SL-PT100-UI-NC - 2864273

accessories

MINI MCR-SL-PTB - 2864134



MINI MCR-SL-PTB-SP - 2864147



Power supply

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



MINI-PS-100-240AC/24DC/1.5/EX - 2866653



System adapter

MINI MCR-SL-V8-FLK 16-A - 2811268



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accessories

Marking material

MINI MCR DKL - 2308111



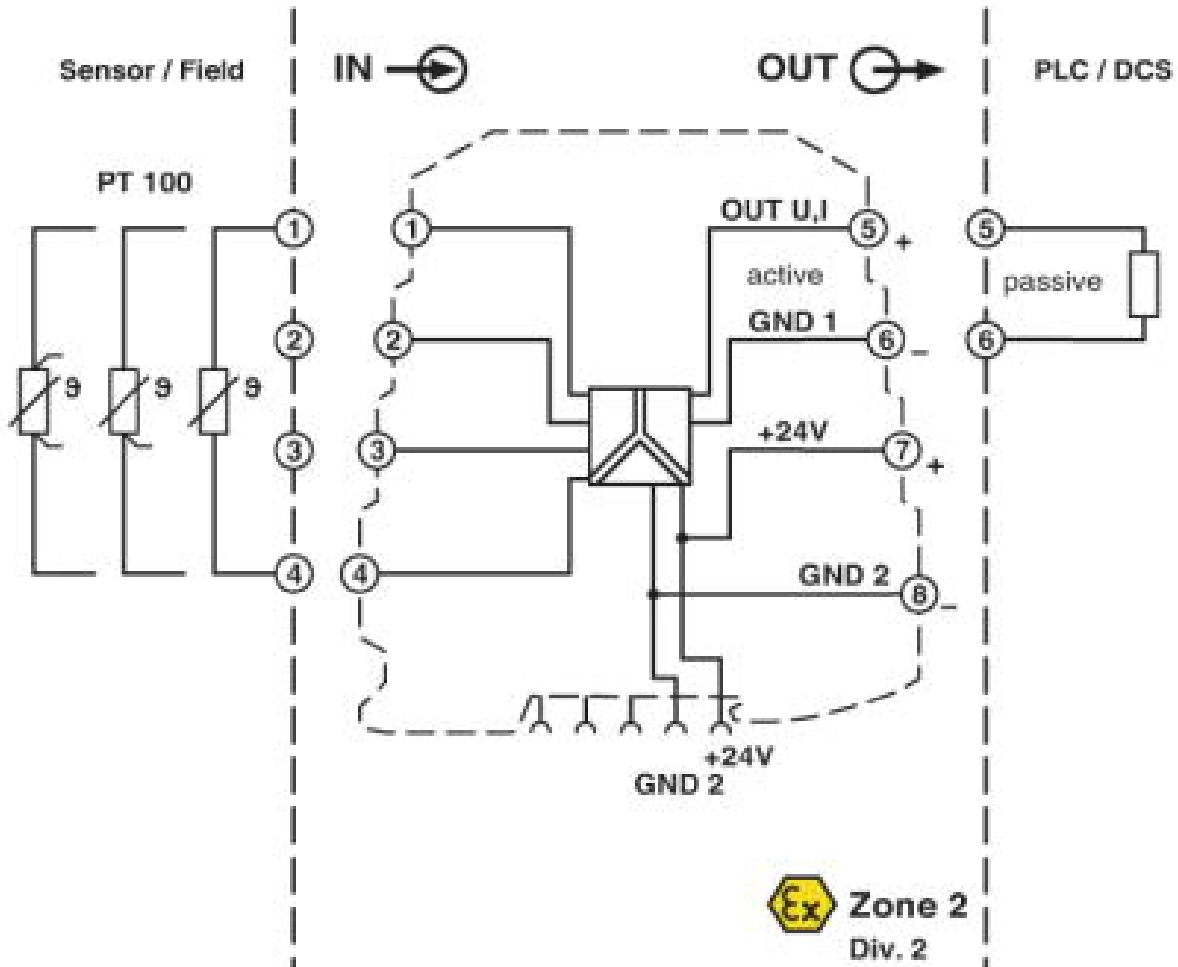
MINI MCR-DKL-LABEL - 2810272



Drawings

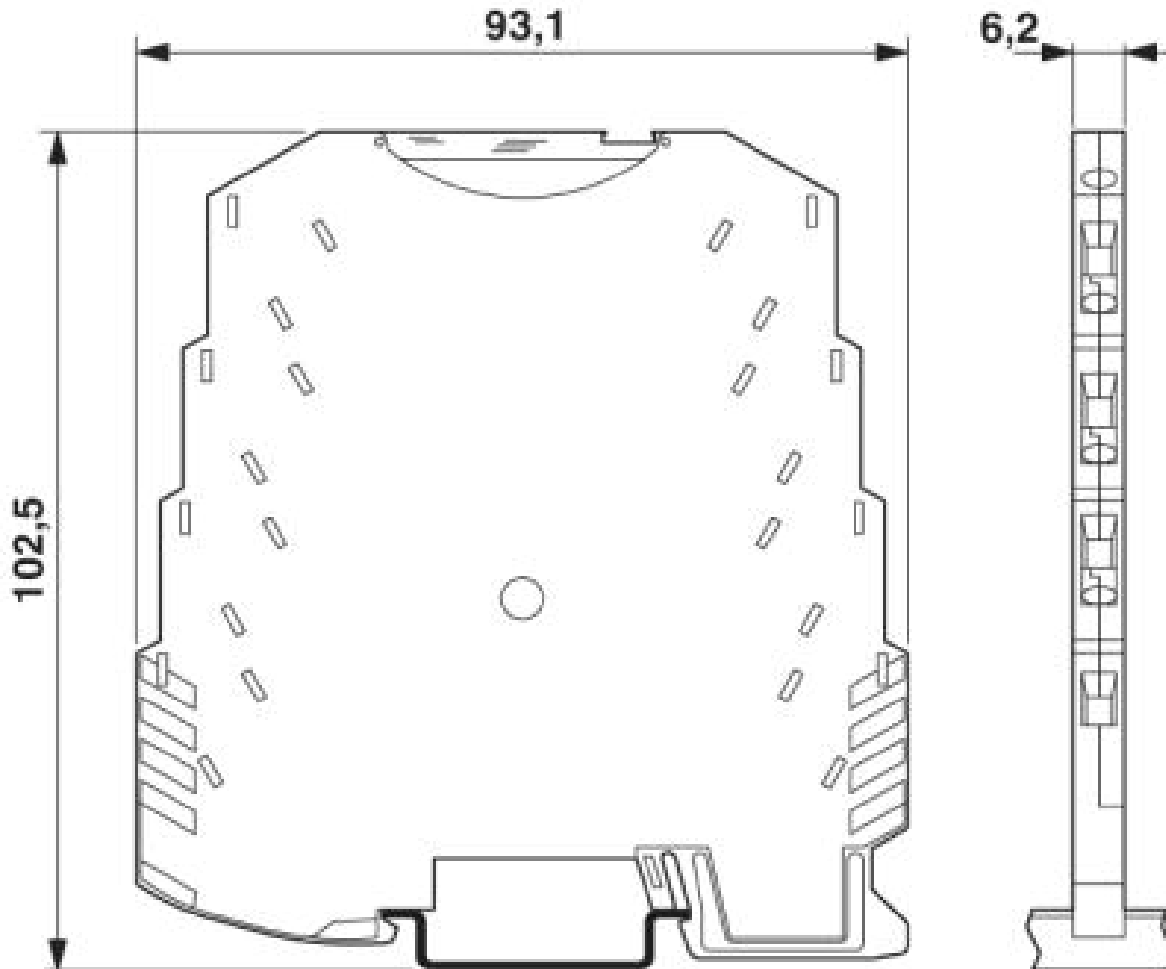
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Block diagram



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Dimensioned drawing



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