

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

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.



MCR temperature transducer, configurable, for Pt 100 temperature sensors, with screw-connection, not configured

Your advantages

- Power supply possible via the foot element (TBUS)
- Optimized temperature measuring range of -50°C to $+200^{\circ}\text{C}$ for increased accuracy
- For 2-, 3-, 4-conductor Pt 100 sensors in accordance with IEC 60751
- Error indication via diagnostic LED and analog signal
- Pt 100 signals to create standard signals
- 3-way isolation
- Highly-compact temperature transducer for electrical isolation, conversion, amplification, and filtering of
- Input and output signals can be configured via DIP switches

Commercial data

Item number	2864370
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C403
Product key	DK1135
GTIN	4046356046480
Weight per piece (including packing)	98.56 g
Weight per piece (excluding packing)	58.57 g
Customs tariff number	85437090
Country of origin	DE

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Temperature transmitter
Product family	MINI Analog
Configuration	DIP switches

Insulation characteristics

Overvoltage category	II
Pollution degree	2

System properties

Functionality

Configuration	DIP switches
---------------	--------------

Electrical properties

Electrical isolation between input and output	yes
Maximum power dissipation for nominal condition	235.5 mW
Protective circuit	Transient protection
Step response (0–99%)	< 200 ms
Maximum temperature coefficient	< 0.02 %/K
Transmission error in the set measuring range	$((50 \text{ K} / \Delta \text{ Temp}) + 0.05)\%$
Transmission error in the full measuring range	$\leq 0.25 \%$

Electrical isolation Input/output/power supply

Rated insulation voltage	50 V AC/DC
Test voltage	1.5 kV AC (50 Hz, 60 s)
Insulation	Basic insulation in accordance with IEC/EN 61010

Supply

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

Input data

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Signal

Number of inputs	1
------------------	---

Measurement

Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Temperature measuring range	min. 50 K
Temperature measuring range: Pt 100	-50 °C ... 200 °C (configurable)
Sensor input current	1 mA (constant)
Max. permissible overall conductor resistance	10 Ω (Per cable)
Connection technology	2-, 3-, 4-conductor

Output data

Signal: Voltage/current

Number of outputs	1
Configurable/programmable	Yes
Voltage output signal	0 V ... 5 V
	1 V ... 5 V
	0 V ... 10 V
	10 V ... 0 V
Max. voltage output signal	≈  V
Open-circuit voltage	≈  V
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	20 mA ... 0 mA
	20 mA ... 4 mA
Max. current output signal	23 mA
Short-circuit current	≈  mA
Load/output load voltage output	> 10 kΩ
Load/output load current output	< 500 Ω (at 20 mA)
Ripple	< 20 mV _{PP} (at 500 Ω)
	< 20 mV _{PP} (at 10 kΩ)

Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	26 ... 12

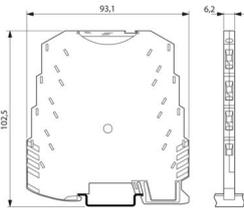
Dimensions

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

Material specifications

Color	green (RAL 6021)
Housing material	PBT
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant
-------------	--------------

UKCA

Certificate	UKCA-compliant
-------------	----------------

UL, USA/Canada

Identification	UL 508 Recognized Class I, Div. 2, Groups A, B, C, D T5
----------------	--

Shipbuilding approval

Certificate	DNV GL TAA00002R0
-------------	-------------------

Shipbuilding data

Temperature	B
Humidity	B
Vibration	B

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

EMC	A
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Noise emission

Standards/regulations	EN 61000-6-4
-----------------------	--------------

Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
----------	---

Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %

Surge current load (surge)

Standards/regulations	EN 61000-4-5
-----------------------	--------------

Surge current load (surge)

Comments	Criterion B
----------	-------------

Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

Mounting

Mounting type	DIN rail mounting
Mounting position	any

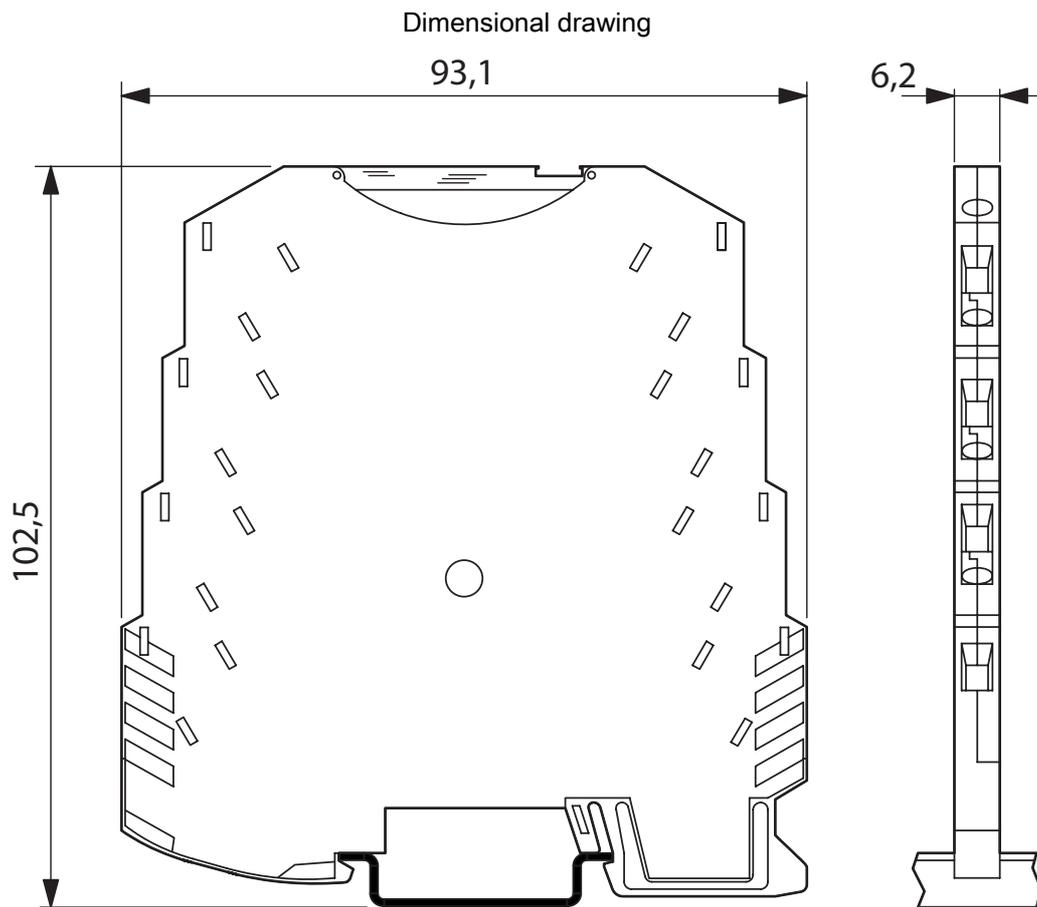
MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Drawings

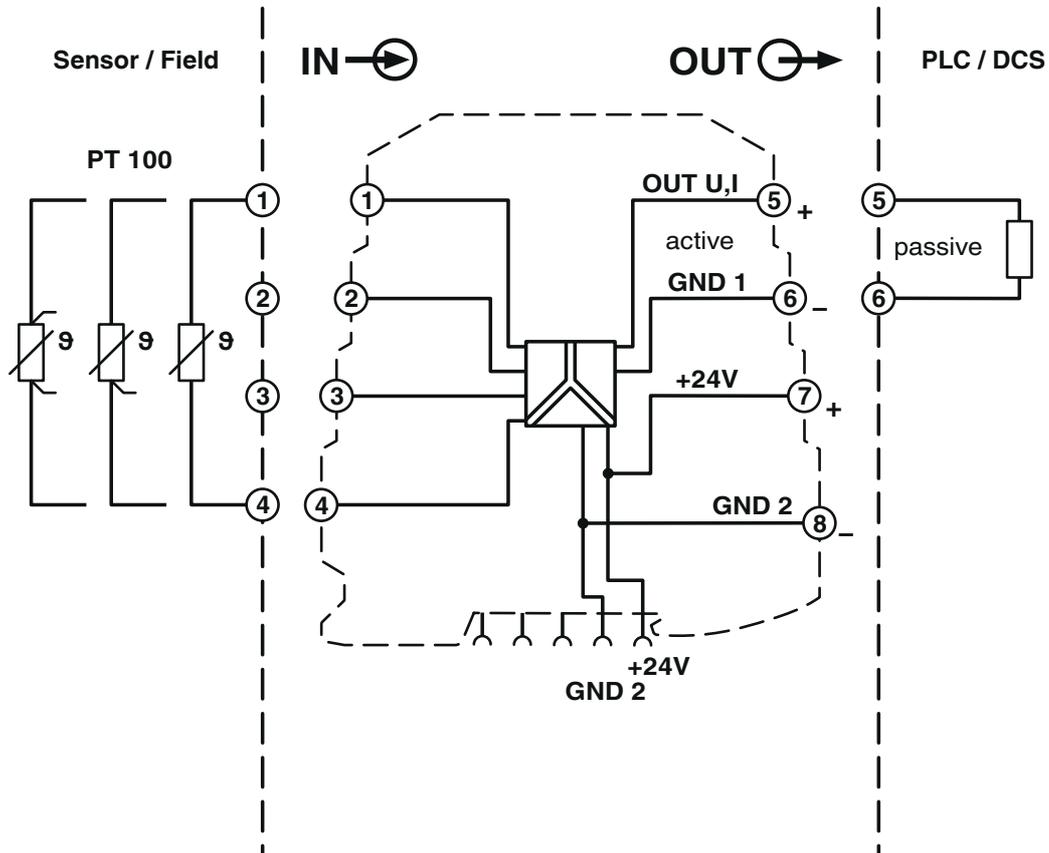


MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer

2864370

<https://www.phoenixcontact.com/us/products/2864370>

Block diagram



MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2864370>



cUL Recognized
Approval ID: E238705



UL Recognized
Approval ID: E238705

DNV

Approval ID: TAA00002R0



cUL Listed
Approval ID: E199827



UL Listed
Approval ID: E199827

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Classifications

ECLASS

ECLASS-13.0	27210129
ECLASS-15.0	27210129

ETIM

ETIM 9.0	EC002919
----------	----------

UNSPSC

UNSPSC 21.0	41112100
-------------	----------

MINI MCR-SL-PT100-UI-200-NC - Temperature measuring transducer



2864370

<https://www.phoenixcontact.com/us/products/2864370>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

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.)	Lead(CAS: 7439-92-1) 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	f6907ea8-b097-4e94-b902-511f0e9879ab

EF3.0 Climate Change

CO2e kg	5.48 kg CO2e
---------	--------------

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

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