

# Temperature measuring transducer - MINI MCR-SL-PT100-UI-200-NC - 2864370

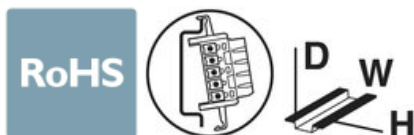
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MCR temperature transducer, configurable, for Pt 100 temperature sensors, with screw-connection, not configured

## Your advantages

- ✓ Power supply possible via the foot element (TBUS)
- ✓ Optimized temperature measuring range of -50°C to +200°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



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356046480

## 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	101.2 mm

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## Technical data

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Degree of protection	IP20
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.

### Input data

Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Sensor input current	1 mA (constant)
Temperature measuring range	-50 °C ... 200 °C
Connection technology	2-, 3-, 4-conductor

### Output data

Output name	Voltage output / current output
Number of outputs	1
Configurable/programmable	Yes
Voltage output signal	0 V ... 10 V 10 V ... 0 V 0 V ... 5 V 1 V ... 5 V
Current output signal	0 mA ... 20 mA 4 mA ... 20 mA 20 mA ... 0 mA 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)
Ripple	< 20 mV <sub>PP</sub> (at 500 Ω) < 20 mV <sub>PP</sub> (at 10 kΩ)

### Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The DIN rail bus 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

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## Technical data

### Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 12

### General

Transmission error in the set measuring range	((50 K / Δ Temp)+ 0.05)%
Transmission error in the full measuring range	≤ 0,25 %
Maximum temperature coefficient	< 0.02 %/K
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Overvoltage category	II
Degree of pollution	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
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
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

### 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 %

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
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## Technical data

### Standards and Regulations

Noise emission	EN 61000-6-4
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010

### Conformance/approvals

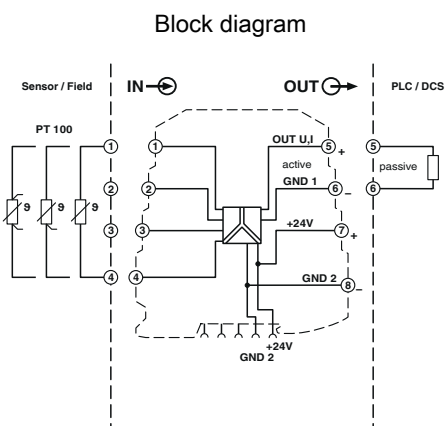
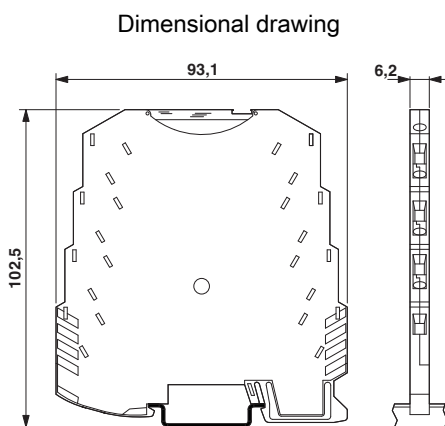
Designation	CE
Certificate	CE-compliant
Designation	UKCA
Designation	UL, USA / Canada
Identification	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5
Designation	Shipbuilding approval
Certificate	DNV GL TAA00002R0
Temperature	B
Humidity	B
Vibration	B
EMC	A
Enclosure	Required protection according to the Rules shall be provided upon installation on board

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

# Temperature measuring transducer - MINI MCR-SL-PT100-UI-200-NC - 2864370



## Classifications

### eCI@ss

eCI@ss 10.0.1	27210129
eCI@ss 11.0	27210129
eCI@ss 4.0	27200200
eCI@ss 4.1	27200200
eCI@ss 5.0	27200200
eCI@ss 5.1	27200200
eCI@ss 6.0	27200200
eCI@ss 7.0	27200206
eCI@ss 9.0	27210129

### ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 6.0	EC002919
ETIM 7.0	EC002919

### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	41112105
UNSPSC 18.0	41112105
UNSPSC 19.0	41112105
UNSPSC 20.0	41112105
UNSPSC 21.0	41112105

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## Approvals

### Approvals

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#### Approvals

DNV GL / UL Recognized / cUL Recognized / cULus Recognized

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#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

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### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA00002R0
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cULus Recognized			
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## Accessories

### Accessories

#### DIN rail connector

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

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### Marking material

# Temperature measuring transducer - MINI MCR-SL-PT100-UI-200-NC - 2864370

## Accessories

Transparent cover - MINI MCR DKL - 2308111



Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

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Marking label - MINI MCR-DKL-LABEL - 2810272



Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL

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## Power module

Power terminal block - MINI MCR-SL-PTB - 2864134



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with screw connection, maximum current consumption of up to 2 A

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## Power supply

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



Please use the following item in new systems: 2904614  
Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

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