

# MCR-SL-PT100-SP - Temperature monitoring



2814948

<https://www.phoenixcontact.com/us/products/2814948>

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MCR temperature relay, for Pt 100 in 2-conductor technology, input: -100 °C ... +700 °C



## Your advantages

- Adjustable switching hysteresis
- Electrical isolation
- Relay changeover contact output
- Switching point can be freely selected in the temperature range from -100°C ... +700°C

## Commercial data

Item number	2814948
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C401
Product key	DK1XXX
GTIN	4017918820381
Weight per piece (including packing)	123.5 g
Weight per piece (excluding packing)	101.5 g
Customs tariff number	85437090
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

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

Product type	Temperature monitoring relay
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### Electrical properties

Linearity error	< 0.1 %
Maximum power dissipation for nominal condition	900 mW
Test voltage, input/output/supply	1.5 kV AC (50 Hz, 60 s)
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	0.005 %/K

#### Supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	< 30 mA

### Input data

#### Measurement

Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Temperature measuring range	-100 °C ... 700 °C
Temperature measuring range: Pt 100	-100 °C ... 700 °C (freely adjustable)
Sensor input current	approx. 1 mA
Connection technology	2-conductor

### Output data

#### Switching: Relay

Contact switching type	1 changeover contact
Contact material	AgSnO, hard gold-plated
Max. switching current	50 mA (for gold layer, 30 V AC/ 36 V DC) 2 A (in case of a destroyed gold layer, 250 V AC)
Typical response time	approx. 6 ms
Typical release time	approx. 200 ms
Status display	Red LED (short-circuit/wire break) Yellow LED (relay active)

### Connection data

Connection method	Screw connection
Stripping length	8 mm

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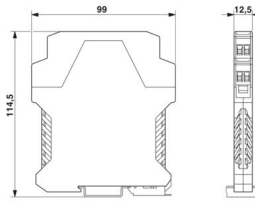


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Screw thread	M3
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14

## Dimensions

Dimensional drawing	
Width	12.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

Color	green (RAL 6021)
Housing material	Polyamide PA non-reinforced

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C

## Approvals

### CE

Certificate	CE-compliant
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### UL, USA/Canada

Identification	UL 508 Recognized
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## Mounting

Mounting type	DIN rail mounting
Mounting position	any

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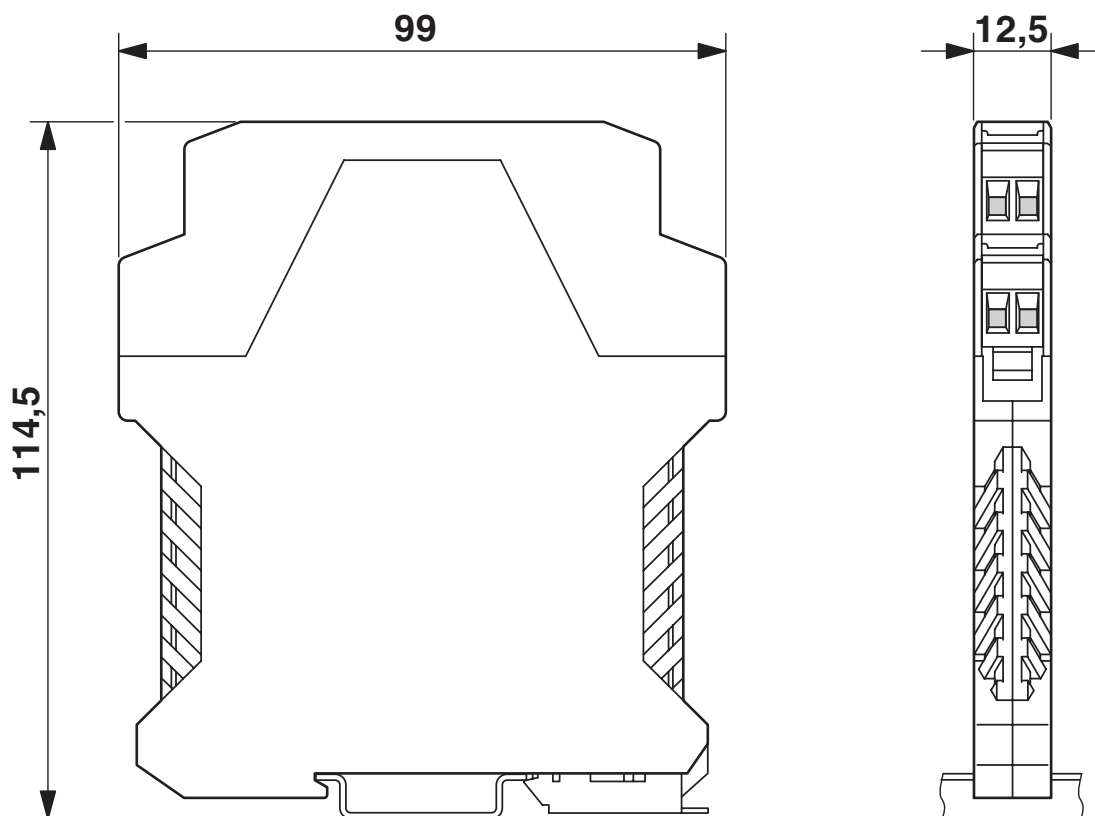
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## Drawings

Dimensional drawing

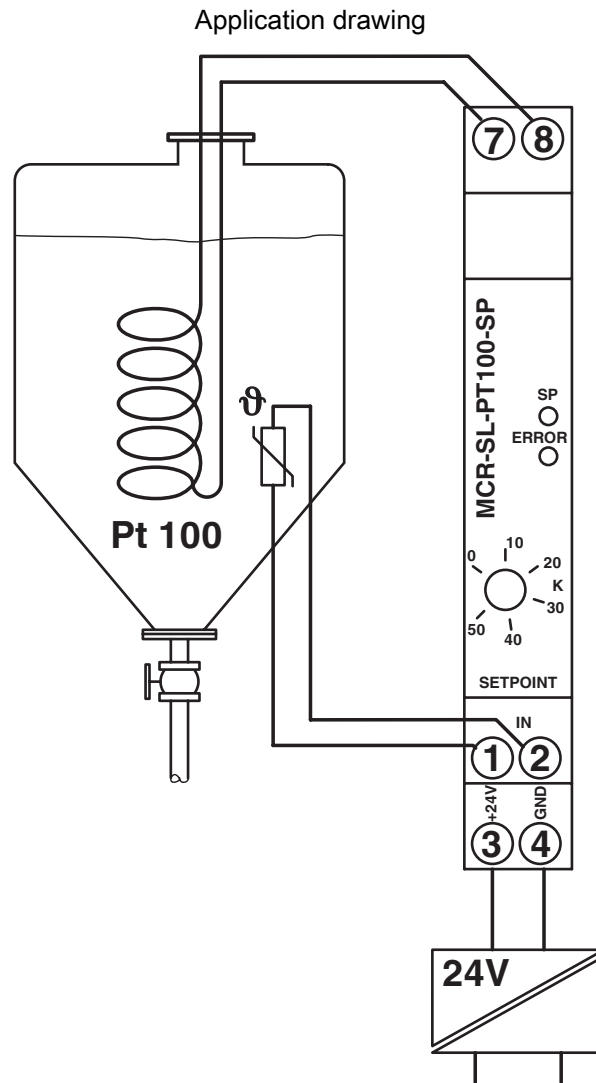


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Application example - Temperature control of a heated medium  
1 = mains voltage

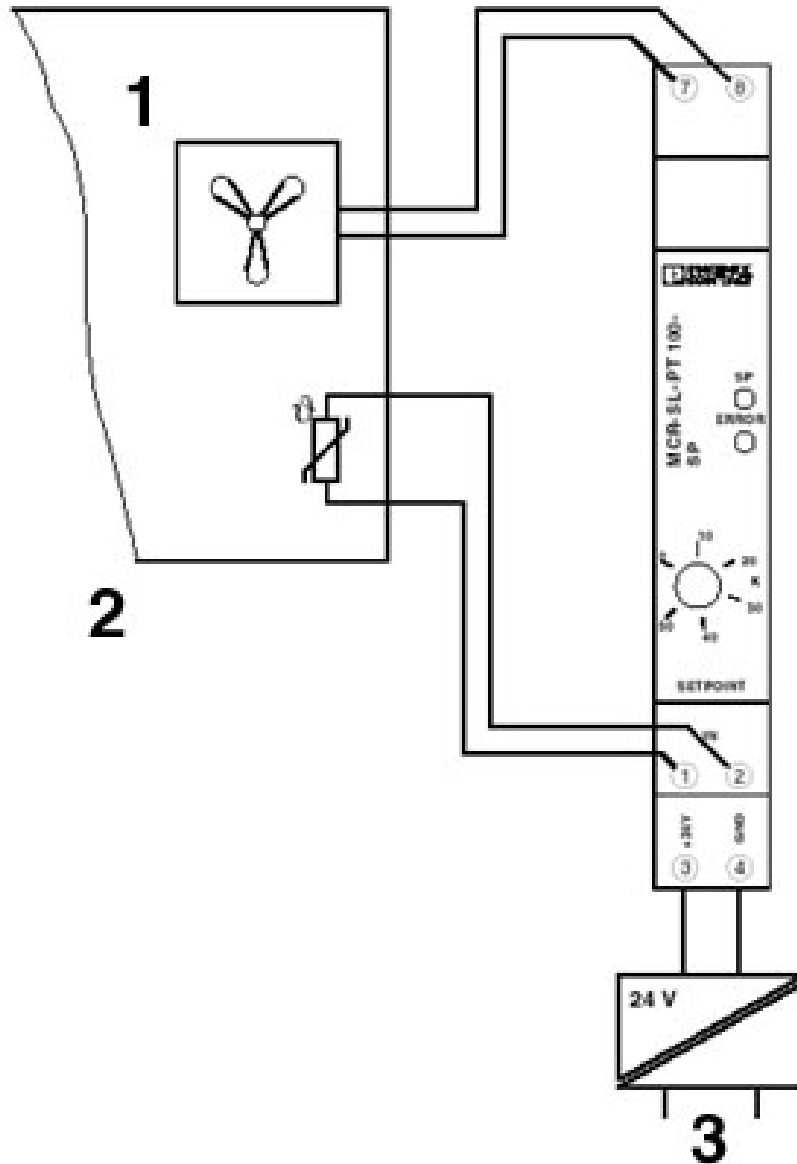
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Application drawing



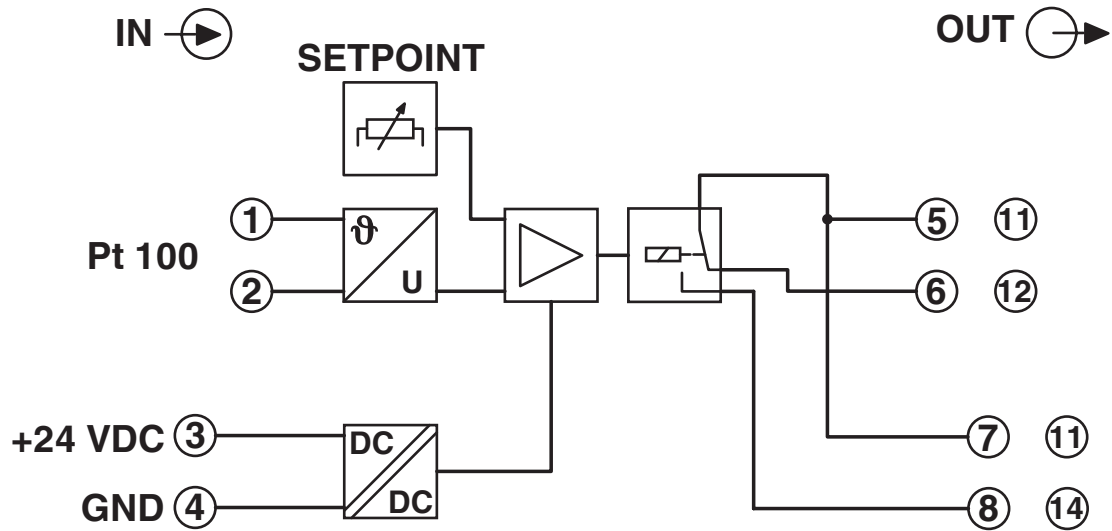
Application example - Temperature control with connection of a fan  
1 = fan  
2 = control cabinet/room  
3 = mains voltage

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Circuit diagram



## Environmental product compliance

### 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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