

## Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Universally configurable temperature limit value switch with two transistor outputs for the connection of 2, 3, and 4-conductor resistance thermometers and thermocouples. Configurable via DIP switch or software, push-in connection technology

### Product Description

Universally configurable temperature limit value switch with two transistor outputs for the connection of 2, 3, and 4-conductor resistance thermometers and thermocouples. You can configure the device using one of the free software solutions available or your smartphone. Default settings can also be made directly on the device by simply using the DIP switches (see configuration table). The temperature limit value switch supports fault monitoring and NFC communication.



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 131566
GTIN	4055626131566

### Technical data

#### Note

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

#### Dimensions

Width	6.2 mm
Height	110.5 mm
Depth	120.5 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

#### Input data

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

# Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

## Technical data

### Input data

Available input sources	Resistance thermometers
Sensor types (RTD) that can be used	Pt, Ni, Cu sensors
Connection technology	2, 3, 4-wire
Sensor input current	approx. 200 $\mu$ A
Max. permissible overall conductor resistance	$\leq 25 \Omega$ (Per line, RTD in 3- or 4-wire technology)
	$\leq 50 \Omega$ (Per line, RTD in 2-wire technology)
Linear resistance measuring range	0 $\Omega$ ... 4000 $\Omega$
Linear mV signal range	-500 mV ... 500 mV
Available input sources	Thermocouples
Sensor types that can be used (TC)	B, E, J, K, N, R, S, T, L, U, A-1, A-2, A-3, M, L

### Switching output

Output name	Switching output
Number of outputs	2
Contact type	2 N/O contacts
Maximum switching voltage	30 V DC
Max. switching current	100 mA (30 V ( $\leq 50 \text{ }^\circ\text{C}$ ))
	70 mA (30 V (51 $^\circ\text{C}$ ... 70 $^\circ\text{C}$ ))

### Power supply

Nominal supply voltage	24 V DC
Supply voltage range	9.6 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))
Typical current consumption	20 mA (12 V DC)
	10 mA (24 V DC)
Power consumption	350 mW

### Connection data

Connection method	Push-in connection
Single conductor/terminal point, solid, with ferrule, min.	0.14 mm <sup>2</sup>
Single conductor/terminal point, solid, with ferrule, max.	2.5 mm <sup>2</sup>
Single conductor/terminal point, solid, without ferrule, min.	0.14 mm <sup>2</sup>
Single conductor/terminal point, solid, without ferrule, max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	12
Stripping length	10 mm

### General

No. of channels	1
Maximum temperature coefficient	0.01 %/K

# Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

## Technical data

### General

Switching point accuracy	< 0.1 %
Status display	Yellow LED (switching output)
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Overvoltage category	II
Degree of pollution	2
Rated insulation voltage	300 V
Test voltage, input/output/supply	3 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	gray
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 Listed
	Class I, Div. 2, Groups A, B, C, D T6
	Class I, Zone 2, Group IIC T6
GL	GL applied for
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

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T6
	Class I, Zone 2, Group IIC T6
GL	GL applied for
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 Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
------------	------------------------------------------

# Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

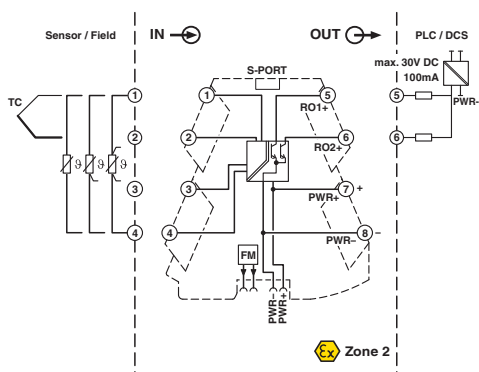
## Technical data

### Environmental Product Compliance

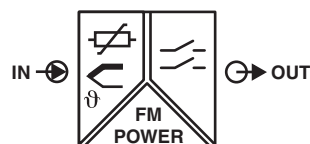
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
--	-----------------------------------------------------------------------------------------------------

## Drawings

Block diagram



Pictogram



## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed


### Approval details

UL Listed		<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
-----------	--	-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------

cUL Listed		<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
------------	--	-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------

## Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

### Approvals

EAC		RU C- DE.A*30.B.01082
-----	-----------------------------------------------------------------------------------	--------------------------

cULus Listed		
--------------	-----------------------------------------------------------------------------------	--

Phoenix Contact 2018 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>