

# MINI MCR-SL-UI-REL-SP - Limit value switch



2864493

<https://www.phoenixcontact.com/us/products/2864493>

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MCR threshold value switch, with adjustable hysteresis and delay time, with spring-cage connection. Replacement part: 2902035 MINI MCR-2-UI-REL-PT.

## Your advantages

- Power supply possible via the foot element (TBUS)
- Highly-compact threshold value switch for switching analog limit values
- Status and error indication via two diagnostic LEDs
- Changeover contact relay at the output
- 3-way isolation
- Limit value can be freely adjusted via potentiometer on the front
- Input signal, hysteresis, and delay time can be configured via DIP switches
- Operating current/closed circuit current switch-over

## Commercial data

Item number	2864493
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C403
Product key	DK1137
GTIN	4017918974886
Weight per piece (including packing)	94.4 g
Weight per piece (excluding packing)	94.4 g
Customs tariff number	85437090
Country of origin	DE

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## Technical data

### Product properties

Product type	Limit value switch
Product family	MINI Analog
No. of channels	1

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Rated insulation voltage	50 V AC/DC
Electrical isolation	Basic insulation in accordance with EN 61010
Electrical isolation between input and output	yes
Test voltage input/power supply	1.5 kV AC (50 Hz, 60 s)
Switching point accuracy	< 0.05 %
Step response (0–99%)	< 35 ms
Maximum temperature coefficient	< 0.02 %/K

### 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	< 14 mA (at 24 V DC)
Power consumption	< 330 mW (at 24 V DC)

### Input data

#### Signal

Number of inputs	1
Voltage input signal	0 V ... 10 V
Max. voltage input signal	30 V
Current input signal	0 mA ... 20 mA
Max. current input signal	100 mA
Input resistance of voltage input	> 100 k $\Omega$
Input resistance current input	50 $\Omega$
Specification of the switching point	With 25-speed potentiometer

### Output data

#### Switching: Relay

Contact switching type	1 changeover contact
Contact material	AgSnO <sub>2</sub> , hard gold-plated

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Maximum switching voltage	250 V AC
	240 V AC (UL)
Limiting continuous current	2 A
Setting range of the response delay	0 s ... 10 s (0 s, 1 s, 2 s, 3 s, 4 s, 6 s, 8 s, 10 s)
Internal hysteresis	0.1 %, 1 %, 2.5 %, 5 %

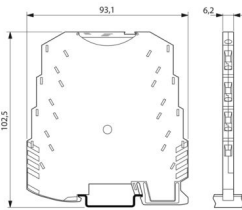
## Signal

Number of outputs	1
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## Connection data

Connection method	Spring-cage connection
Stripping length	8 mm
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 ... 12

## Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	102.5 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

## Approvals

### CE

Certificate	CE-compliant
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## ATEX

Identification	⊕ II 3 G Ex nA nC IIC T4 Gc X
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## UL, USA

Identification	Class I, Zone 2, AEx nA nC IIC T5
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## UL, USA/Canada

Identification	UL 508 Recognized
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## UL, Canada

Identification	Class I, Zone 2, Ex nA nC IIC T5 Gc
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## GL

Identification	GL EMC 2 D
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## 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
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## Electrostatic discharge

Standards/regulations	EN 61000-4-2
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## Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
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## Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	5 %

## Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	5 %

## Surge current load (surge)

Standards/regulations	EN 61000-4-5
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## Surge current load (surge)

Comments	Criterion B
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## Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6

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Typical deviation from the measuring range final value	5 %
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## Standards and regulations

Electrical isolation	Basic insulation in accordance with EN 61010
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## Mounting

Mounting type	DIN rail mounting
Assembly note	The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail.
Mounting position	any

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## Drawings

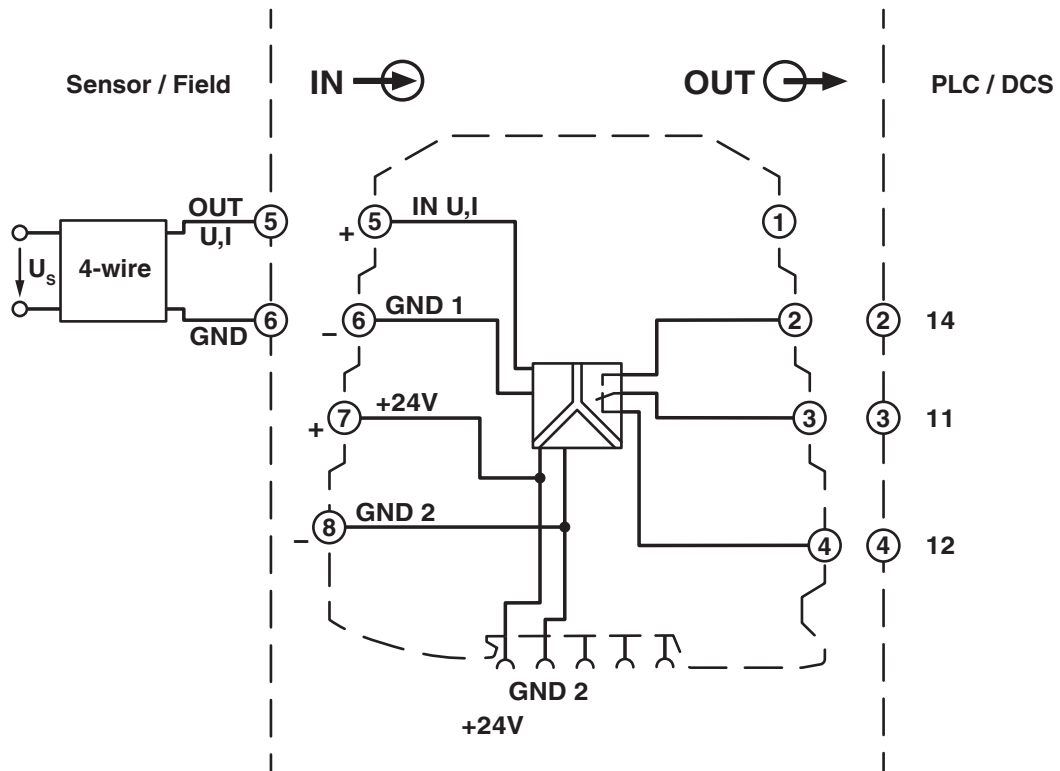


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Block diagram



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## 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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