

# Resistance/potiposition transducer - MINI MCR-SL-R-UI-SP - 2810256

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MCR potiposition transducer for converting potentiometer positions to an analog standard signal, input 0...100 Ω to 0...100 kΩ

## Why buy this product

- ✓ Power supply possible via the foot element (TBUS)
- ✓ Automatic potentiometer detection without manual adjustment
- ✓ Error indication via diagnostic LED and analog signal
- ✓ For 100 Ω to 100 kΩ potentiometers
- ✓ Input and output signals can be configured via DIP switches
- ✓ A potentiometer sub-range can be linearized via the "teach-in" switch on the device
- ✓ Highly-compact potentiometer transducer for electrical isolation, conversion, amplification, and filtering of
- ✓ Configurable measuring range and output signals
- ✓ potentiometer signals to create standard signals
- ✓ 3-way isolation



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 996079
GTIN	4017918996079

## 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

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## Technical data

### Dimensions

Depth	102.5 mm
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### Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

### Input data

Potentiometer	100 Ω ... 100 kΩ
Reference voltage source	< 3.6 V

### Output data

Voltage output signal	0 V ... 5 V
	1 V ... 5 V
	0 V ... 10 V
	10 V ... 0 V
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	20 mA ... 0 mA
	20 mA ... 4 mA
Max. voltage output signal	12.5 V
Max. current output signal	23 mA
Load/output load voltage output	> 10 kΩ
Load/output load current output	< 500 Ω (20 mA)

### Power supply

Supply voltage	24 V DC
	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))
Current consumption	< 25 mA (at 24 V DC)

### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Stripping length	8 mm
Connection method	Spring-cage connection

### General

Maximum transmission error	< 0.2 %
Maximum temperature coefficient	< 0.02 %/K

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## Technical data

### General

Temperature coefficient, typical	< 0.02 %/K
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Housing material	PBT
Color	green
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Recognized

### EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	5 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	5 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	5 %

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Connection in acc. with standard	CUL
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T4
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
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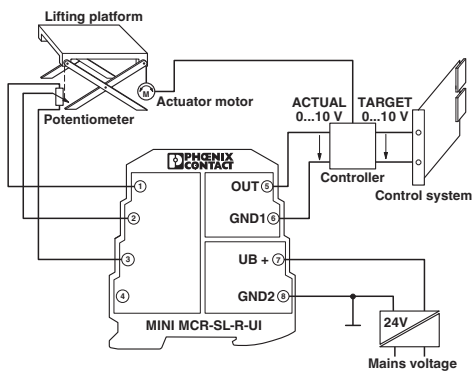
## Technical data

## Environmental Product Compliance

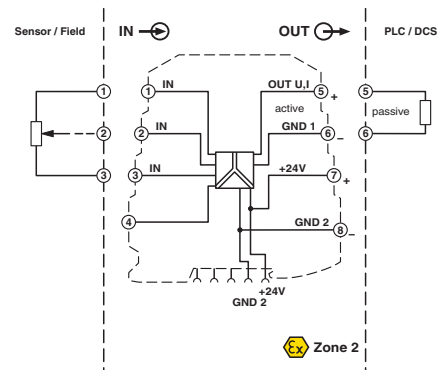
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Application drawing

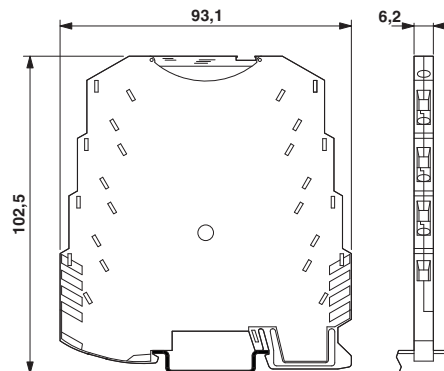


Block diagram



Height adjustment of a lifting platform with setpoint and actual value control

Dimensional drawing



## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / DNV GL / EAC / cULus Recognized

#### Ex Approvals

UL Listed / cUL Listed / ATEX / cULus Listed

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## Approvals

### Approval details

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
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
DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAA00000N1
EAC			RU C- DE.A*30.B.01082
cULus 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>	

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