

Resistance/potiposition transducer - MINI MCR-SL-R-UI - 2864095

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MCR potiposition transducer for conversion of potentiometer positions into a standard analog signal, 0 Ω input... 100 Ω to 0 k Ω ... 100 k Ω

Product Description

The slim MINI MCR-SL-R-UI... potiposition transducer has a width of only 6.2 mm and converts potentiometer positions as a percentage to an analog standard signal. If the potentiometer range cannot be utilized to the full, an externally accessible slide switch is used to set the upper and lower potiposition end values. The output signal between 0 and 100% is based on this fixed end value.

The DIP switches are accessible on the side of the housing and allow the following parameters to be configured:

- Output signal,
- Automatic potentiometer detection,
- Open circuit detection slider and
- Fault evaluation type.

Power (19.2 V DC to 30 V DC) can be supplied through connection terminals on the modules or in conjunction with the DIN rail connector.

Your advantages

- ✓ 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 k Ω potentiometers
- ✓ potentiometer signals to create standard signals
- ✓ Configurable measuring range and output signals
- ✓ Highly-compact potentiometer transducer for electrical isolation, conversion, amplification, and filtering of
- ✓ Input and output signals can be configured via DIP switches
- ✓ 3-way isolation
- ✓ A potentiometer sub-range can be linearized via the "teach-in" switch on the device



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 046442
GTIN	4046356046442
Weight per Piece (excluding packing)	73.170 g
Custom tariff number	85437090

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Country of origin	Germany
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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	102.5 mm

Ambient conditions

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

Input data

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

Output data

Voltage output signal	0 V ... 5 V
	0 V ... 10 V
	1 V ... 5 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 k Ω
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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm ²

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Connection data

Conductor cross section flexible max.	2.5 mm ²
Stripping length	12 mm
Screw thread	M3
Connection method	Screw connection

General

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

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Standards and Regulations

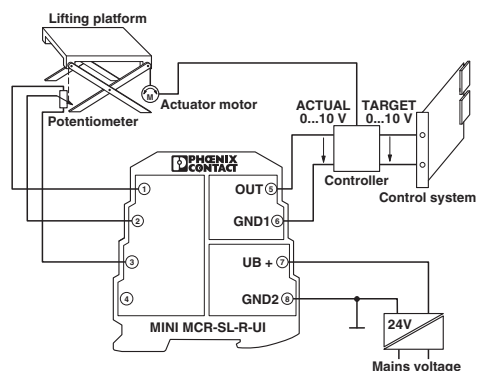
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2

Environmental Product Compliance

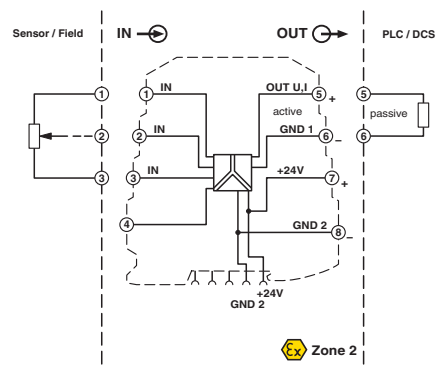
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Application drawing

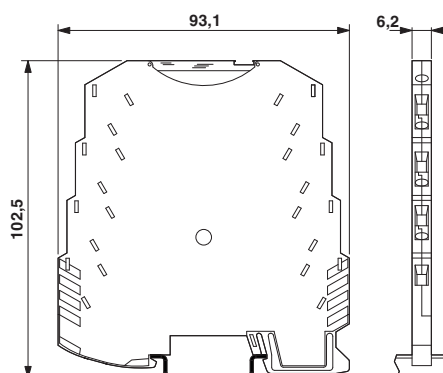


Block diagram



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

Dimensional drawing



Classifications

eCI@ss

eCI@ss 4.0	27210120
eCI@ss 4.1	27210120

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Classifications

eCl@ss

eCl@ss 5.0	27210120
eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120
eCl@ss 9.0	27210120

ETIM

ETIM 4.0	EC002653
ETIM 5.0	EC002653
ETIM 6.0	EC002653

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

Approvals

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

Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed

Approval details

DNV GL		http://exchange.dnv.com/tari/	TAA00000N1
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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Approvals

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<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

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EAC



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