

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

RoHS



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 046442
GTIN	4046356046442

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

Weight per Piece (excluding packing)	89.400 g
Custom tariff number	85437090
Country of origin	Germany

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	101.2 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Degree of protection	IP20
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.

Input data

Potentiometer	100 Ω ... 100 kΩ
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 kΩ
Load/output load current output	< 500 Ω (20 mA)

Power supply

Nominal supply voltage	24 V DC
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Technical data

Power supply

Supply voltage range	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))
Typical current consumption	< 25 mA (at 24 V DC)
Power consumption	< 500 mW

Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 12

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

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Technical data

Standards and Regulations

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

Conformance/approvals

Designation	CE
Identification	CE-compliant
Designation	ATEX
Identification	# II 3 G Ex nA IIC T4 Gc X
Designation	UL, USA/Canada
Identification	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T4
Designation	Shipbuilding approval
Identification	BBBAA
Certificate	DNV GL TAA00000N1

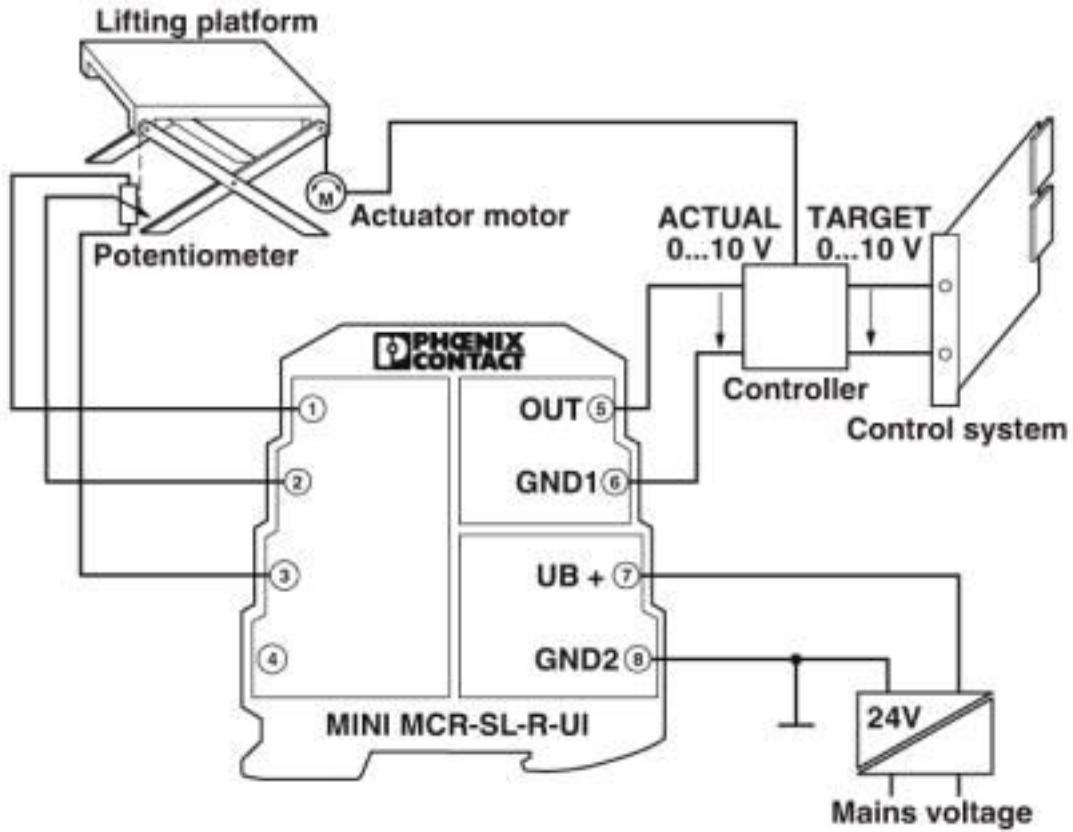
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

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

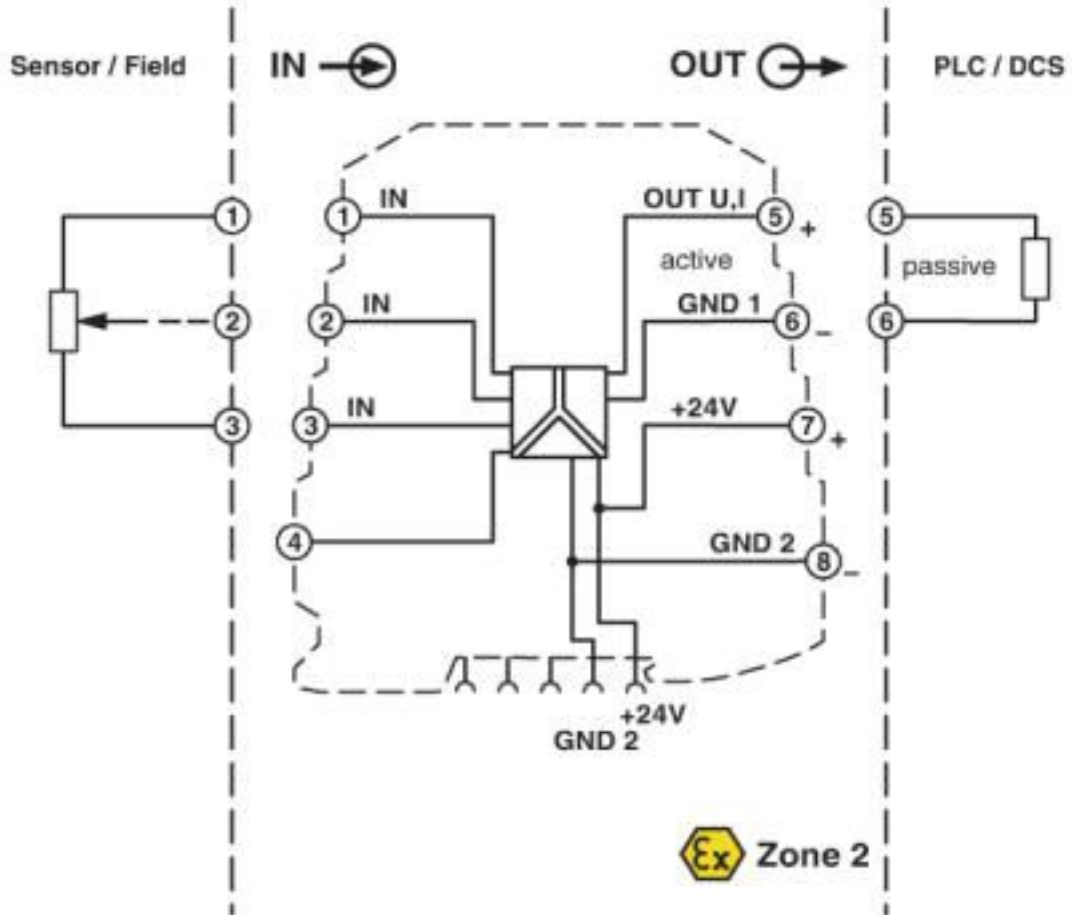
Application drawing



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

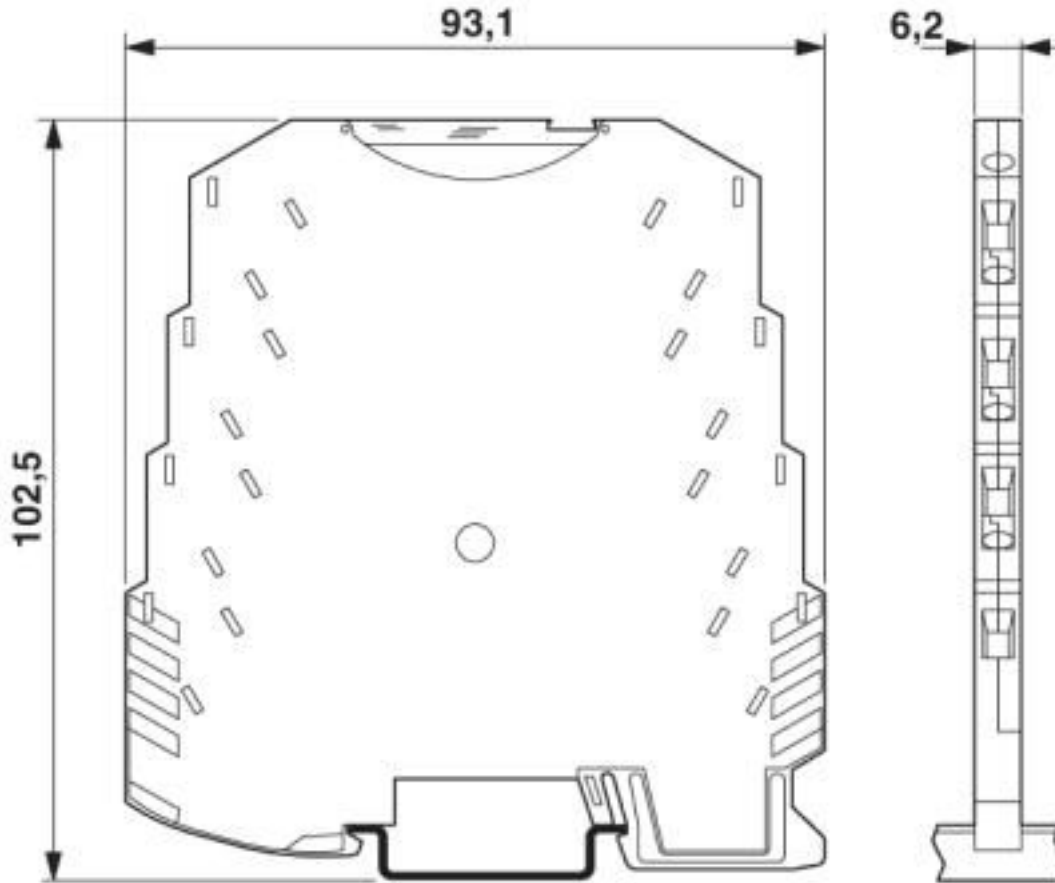
Resistance/potiposition transducer - MINI MCR-SL-R-UI - 2864095

Block diagram



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

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27210120
eCl@ss 4.0	27210100
eCl@ss 4.1	27210100
eCl@ss 5.0	27210100
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
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Classifications

ETIM

ETIM 5.0	EC002653
ETIM 6.0	EC002653
ETIM 7.0	EC002653

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008
UNSPSC 18.0	39121008
UNSPSC 19.0	39121008
UNSPSC 20.0	39121008
UNSPSC 21.0	39121008

Approvals

Approvals

Approvals

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

Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	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

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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EAC			RU C- DE.A*30.B.01082
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cULus Recognized			
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Accessories

Accessories

DIN rail connector

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Marking material

Transparent cover - MINI MCR DKL - 2308111



Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

Marking label - MINI MCR-DKL-LABEL - 2810272



Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL

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Accessories

Power module

Power terminal block - MINI MCR-SL-PTB - 2864134



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with screw connection, maximum current consumption of up to 2 A

Power terminal block - MINI MCR-SL-PTB-SP - 2864147



MCR feed-in terminal for supplying several MINI Analog modules via a DIN rail connector, with spring-cage connection, maximum current consumption of up to 2 A. Replacement part: 2902067 MINI MCR-2-PTB-PT.

Power supply

Power supply unit - MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

Power supply unit - MINI-PS-100-240AC/24DC/1.5/EX - 2866653



Primary-switched power supply MINI POWER for DIN rail mounting, input: 1-phase, output: 24 V DC/1,5 A, for the potentially explosive area

System adapter

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Accessories

System adapter - MINI MCR-SL-V8-FLK 16-A - 2811268



Eight MINI analog signal converters with screw connection method can be connected to a control system using a system adapter and system cabling with a minimum of wiring and very low error risk.