

Resistance/potiposition transducer - MINI MCR-2-POT-UI - 2902016

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Configurable potiposition transducer with plug-in connection technology for connecting potentiometers from 0 Ω ... 100 Ω to 0 kΩ ... 100 kΩ. Configurable via DIP switch or software. Screw connection technology, standard configuration

Product Description

Configurable, 3-way isolated potentiometer measuring transducer with plug-in connection technology. The measured values are converted into a linear and freely adjustable current or voltage signal. You can configure the device using one of the free software solutions. Default settings can also be made directly on the device by simply using the DIP switches (see configuration table). If it is not possible to fully utilize the potentiometer range, you can specify the upper and lower potentiometer values in the software. The measuring transducer supports fault monitoring and NFC communication.



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 649551
GTIN	4046356649551
Weight per Piece (excluding packing)	110.000 g
Custom tariff number	85437090
Country of origin	Germany
Sales Key	CK1432

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	109.81 mm
Depth	119.2 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
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Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Degree of protection	IP20 (not assessed by UL)
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.

Input data

Potentiometer	100 Ω ... 100 kΩ
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Output data

Voltage output signal	1 V ... 5 V (via DIP switch)
	10 V ... 0 V (via DIP switch)
	0 V ... 5 V (via DIP switch)
	0 V ... 10 V (via DIP switch)
	0 V ... 10.5 V (can be set via software)
Current output signal	0 mA ... 20 mA (via DIP switch)
	4 mA ... 20 mA (via DIP switch)
	20 mA ... 0 mA (via DIP switch)
	20 mA ... 4 mA (via DIP switch)
	0 mA ... 21 mA (can be set via software)
Max. voltage output signal	approx. 12.3 V
Max. current output signal	24.6 mA
Load/output load voltage output	≥ 10 kΩ
Load/output load current output	≤ 600 Ω (at 20 mA)

Power supply

Supply voltage	24 V DC
	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))
Current consumption	33 mA (24 V DC)
	68 mA (12 V DC)

Connection data

Connection method	Screw connection
Stripping length	10 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 1.5 mm ² (with ferrule)
	0.14 mm ² ... 2.5 mm ² (without ferrule)
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12 (flexible)
Torque	0.5 Nm ... 0.6 Nm

General

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General

Maximum transmission error	< 0.1 % (R < 240 Ω = < 0,2 %)
Maximum temperature coefficient	0.01 %/K
Temperature coefficient, typical	0.01 %/K
Step response (10-90%)	< 60 ms
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Housing material	PBT
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Listed

EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	0.2 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	0.4 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	0.2 %

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Standards/regulations	EN 61000-4-2
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
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 T5
	Class I, Zone 2, Group IIC T5

Conformance/approvals

Designation	CE
Identification	CE-compliant

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Technical data

Conformance/approvals

Designation	ATEX
Identification	# II 3 G Ex nA IIC T4 Gc X
Designation	UL, USA/Canada
Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T5
	Class I, Zone 2, Group IIC T5
Designation	Shipbuilding approval
Identification	C, EMC2
Certificate	DNV GL 14445-15HH

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"

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