

# Loop-powered isolators - MACX MCR-SL-I-I-ILP - 2905278

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Single-channel input loop-powered 2-way isolator with plug-in connection technology for the electrical isolation of analog signals. Input signal = output signal: 0(4) mA ... 20 mA. Screw connection technology.

#### **Product Description**

Single-channel input-loop-powered 2-way isolator with plug-in connection technology for the electrical isolation and filtering of analog signals. The input-loop-powered isolator allows operation with active sensor technology with a supply voltage of 6 V DC to 30 V DC. The device is powered via the current loop of the sensor. Input signal = output signal: 0(4) mA to 20 mA. With screw connection.



## **Key Commercial Data**

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 944403 |
| GTIN                                 | 4046356944403   |
| Weight per Piece (excluding packing) | 120.000 g       |
| Custom tariff number                 | 85437090        |
| Country of origin                    | Germany         |

#### Technical data

#### **Dimensions**

| Width  | 12.5 mm  |
|--------|----------|
| Height | 99 mm    |
| Depth  | 114.5 mm |

#### Ambient conditions

| Ambient temperature (operation)         | -40 °C 85 °C |
|---|--------------|
| Ambient temperature (storage/transport) | -40 °C 85 °C |



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### Ambient conditions

| Maximum altitude                 | < 2000 m                  |
|----------------------------------|---------------------------|
| Permissible humidity (operation) | 5 % 95 % (non-condensing) |
| Noise immunity                   | EN 61326-1                |
| Degree of protection             | IP20                      |

## Output data

| Signal output                   | Current output                      |
|---------------------------------|-------------------------------------|
| Configurable/programmable       | no                                  |
| Max. voltage output signal      | 27.5 V                              |
| Current output signal           | 0 mA 20 mA                          |
|                                 | 4 mA 20 mA                          |
| Transmission Behavior           | 1:1 to input signal                 |
| Load/output load current output | $\leq$ 1375 $\Omega$ (I = 20 mA)    |
| Residual ripple                 | < 10 mV <sub>rms</sub> (500 Ω load) |

## Connection data

| Conductor cross section solid min.    | 0.2 mm²          |
|---------------------------------------|------------------|
| Conductor cross section solid max.    | 2.5 mm²          |
| Conductor cross section flexible min. | 0.2 mm²          |
| Conductor cross section flexible max. | 2.5 mm²          |
| Conductor cross section AWG min.      | 24               |
| Conductor cross section AWG max.      | 14               |
| Stripping length                      | 7 mm             |
| Connection method                     | Screw connection |
| Tightening torque, min                | 0.5 Nm           |
| Tightening torque max                 | 0.6 Nm           |

### General

| No. of channels                        | 1  |
|--|--|
| Maximum transmission error             | ≤ 0.1 % (of final value)                                 |
| Maximum temperature coefficient        | $\leq$ 0.002 %/K (of measured value / 100 $\Omega$ load) |
| Flammability rating according to UL 94 | V0   |
| Degree of pollution                    | 2  |
| Overvoltage category                   | П  |
| Electromagnetic compatibility          | Conformance with EMC directive                           |
| Housing material                       | PA 66  |
| Color                                  | green  |
| Designation                            | Input/output/power supply                                |



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## Technical data

### General

| Electrical isolation | $300~V_{rms}$ (Rated insulation voltage (overvoltage category II; degree of pollution 2, safe isolation as per EN 61010-1)) |
|----------------------|---|
|                      | 2.5 kV (50 Hz, 1 min., test voltage)  |
| Conformance          | CE-compliant, additionally EN 61326-1   |
| ATEX                 | # II 3 G Ex nA IIC T4 Gc X  |
| UL, USA/Canada       | UL 61010 Listed   |
|                      | Class I, Div. 2, Groups A, B, C, D T4   |
|                      | Class I, Zone 2, Group IIC T4   |

## Standards and Regulations

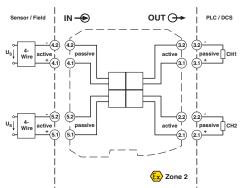
| Electromagnetic compatibility          | Conformance with EMC directive        |
|--|---------------------------------------|
| Noise immunity                         | EN 61326-1                            |
| Flammability rating according to UL 94 | V0                                    |
| Conformance                            | CE-compliant, additionally EN 61326-1 |
| ATEX                                   | # II 3 G Ex nA IIC T4 Gc X            |
| UL, USA/Canada                         | UL 61010 Listed                       |
|  | Class I, Div. 2, Groups A, B, C, D T4 |
|  | Class I, Zone 2, Group IIC T4         |

## **Environmental Product Compliance**

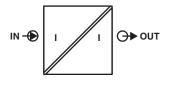
| China RoHS | Environmentally Friendly Use Period = 50  |
|------------|---|
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

# Block diagram



### Pictogram





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