

## MACX MCR-EX-SL-2NAM-T-SP

Order No.: 2924090

The illustration shows the versions with screw connection



Ex-i NAMUR isolating amplifier, 2-channel. For operating proximity sensors and switches in Ex areas. The signals are transmitted via transistor outputs (passive) to the safe area. Line fault detection (LFD), 3-way isolation, SIL 2.

**SIL 2**

### Commercial data

|                          |                    |
|--------------------------|--------------------|
| EAN                      | 4046356337335      |
| Pack                     | 1                  |
| Customs tariff           | 85389091           |
| Weight/Piece             | 133.10 g           |
| Country of Origin        | DE                 |
| Catalog page information | Page 439 (IF-2009) |

### Product notes

WEEE/RoHS-compliant since:  
13/11/2008

Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation at <http://www.download.phoenixcontact.com>. The General Terms and Conditions of Use apply to Internet downloads.

### Technical data

#### Measuring input

|                                 |                       |
|---------------------------------|-----------------------|
| Non-load voltage                | 8 V DC $\pm$ 10%      |
| Switching points (attenuated)   | < 1.2 mA (blocking)   |
| Switching points (unattenuated) | > 2.1 mA (conductive) |

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**Measurement output**

|                           |                            |
|---------------------------|----------------------------|
| Switching output          | Transistor output, passive |
| Maximum switching voltage | 30 V DC (per output)       |
| Min. contact current      | 5 mA                       |

**Power supply**

|                          |                       |
|--------------------------|-----------------------|
| Nominal supply voltage   | 24 V DC               |
| Supply voltage range     | 19.2 V DC ... 30 V DC |
| Max. current consumption | < 34 mA (24 V DC)     |
| Power consumption        | 1000 mW               |

**Connection data**

|                                        |                     |
|----------------------------------------|---------------------|
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 1.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 1.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 16                  |
| Stripping length                       | 7 mm                |
| Type of connection                     | Spring-cage conn.   |

**General data**

|                                         |                                                                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------|
| No. of channels                         | 2                                                                                   |
| Ambient temperature (operation)         | -20 °C ... 60 °C (Any mounting position)                                            |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C                                                                    |
| Permissible humidity (operation)        | 10 % ... 95 % (no condensation)                                                     |
| Status display                          | Green LED (supply voltage)<br>LED yellow (switching state)<br>Red LED (line errors) |
| Width                                   | 12.5 mm                                                                             |
| Height                                  | 99 mm                                                                               |
| Depth                                   | 114.5 mm                                                                            |
| Inflammability class acc. to UL 94      | V0                                                                                  |
| Housing material                        | PA 66-FR                                                                            |
| Color                                   | green                                                                               |
| Conformance                             | CE-compliant, additionally EN 61326                                                 |
| ATEX                                    | II (1) GD [Ex ia] IIC                                                               |

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|                         |                                      |
|-------------------------|--------------------------------------|
| IECEX                   | [Ex ia] IIC; [Ex iaD]; Ex nA II T4 X |
| UL, USA / Canada        | UL applied for                       |
| Functional safety (SIL) | SIL 2 according to EN 61508          |

#### Safety data

|                                 |             |
|---------------------------------|-------------|
| Max. voltage $U_o$              | 9.6 V       |
| Max. current $I_o$              | 10.3 mA     |
| Max. power $P_o$                | 25 mW       |
| Gas group                       | II C        |
| Max. external inductivity $L_o$ | 100 mH      |
| Max. external capacity $C_o$    | 510 nF      |
| Gas group                       | II C        |
| Max. external inductivity $L_o$ | 5 mH        |
| Max. external capacity $C_o$    | 840 nF      |
| Gas group                       | II C        |
| Max. external inductivity $L_o$ | 1 mH        |
| Max. external capacity $C_o$    | 1.2 $\mu$ F |

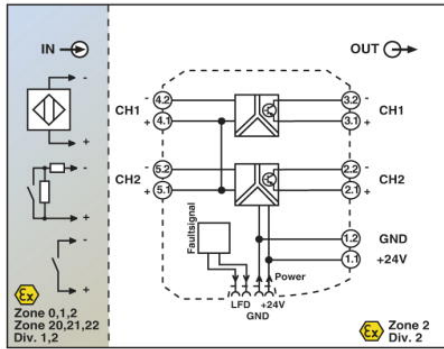
#### Certificates



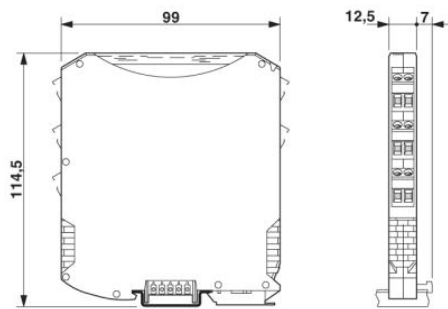
|                             |                        |
|-----------------------------|------------------------|
| Certification               | CUL Listed, UL Listed  |
| Certification Ex:           | IECEX                  |
| Certifications applied for: | UL-EX LIS / CUL-EX LIS |

## Drawings

### Block diagram



### Dimensioned drawing



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