

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

Order No.: 2924090

The illustration shows the versions with screw connection




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2924090>

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.



Commercial data

| | |
|--------------------------|--|
| GTIN (EAN) |  4 046356 337335 |
| sales group | H722 |
| Pack | 1 pcs. |
| Customs tariff | 85437090 |
| Catalog page information | Page 449 (IF-2011) |

Product notes

WEEE/RoHS-compliant since:
08/12/2008



<http://www.download.phoenixcontact.com>
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. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

Input data

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

Output data

| | |
|---------------------------|----------------------------|
| 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 ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 1.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 16 |
| Stripping length | 7 mm |
| Connection method | 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) LED yellow (switching state) Red LED (line errors) |
| Width | 12.5 mm |
| Height | 99 mm |
| Depth | 114.5 mm |
| Inflammability class acc. to UL 94 | V0 |
| Pollution degree | 2 |
| Surge voltage category | II |
| Housing material | PA 66-FR |
| Degree of protection | IP20 |

| | |
|---|--|
| Color | green |
| Electrical isolation input / output | 375 V (Peak value in accordance with EN 60079-11) |
| Electrical isolation of input/output, supply, T-connector | 300 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178) |
| Electrical isolation of output/supply, T connector | 300 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178) |
| Electrical isolation input / supply / T connector | 375 V (Peak value in accordance with EN 60079-11) |
| Electrical isolation of output 1/output 2 | 50 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178) |
| Conformance | CE-compliant, additionally EN 61326 |
| ATEX | II (1) GD [Ex ia] IIC Ex II 3 G Ex nA II T4 X |
| IECEX | [Ex ia] IIC; [Ex iaD]; Ex nA II T4 X |
| UL, USA / Canada | Class I Div 2; IS for Class I, II, III Div 1 |
| Functional safety (SIL) | SIL 2 according to EN 61508 |

Safety data

| | |
|---|---------------------|
| Max. capacitance C _i | 1.1 nF |
| 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 µF |
| Gas group | II C |
| Max. external inductivity L _o | 10 µH |
| Max. external capacity C _o | 3.6 µF |
| Safety-related maximum voltage U _m | 253 V AC (125 V DC) |
| Gas group | II B |
| Max. external inductivity L _o | 100 mH |
| Max. external capacity C _o | 2.7 µF |

| | |
|--|--------|
| Gas group | II B |
| Max. external inductivity L _o | 5 mH |
| Max. external capacity C _o | 4.4 µF |
| Gas group | II B |
| Max. external inductivity L _o | 1 mH |
| Max. external capacity C _o | 6.3 µF |
| Gas group | II B |
| Max. external inductivity L _o | 10 µH |
| Max. external capacity C _o | 26 µF |

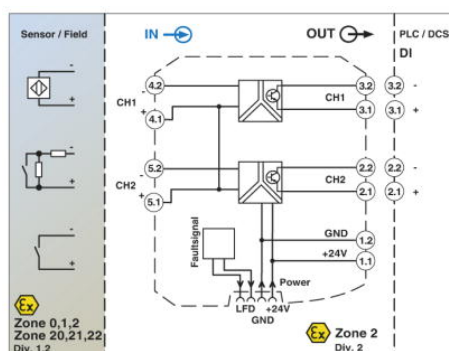
Certificates / Approvals



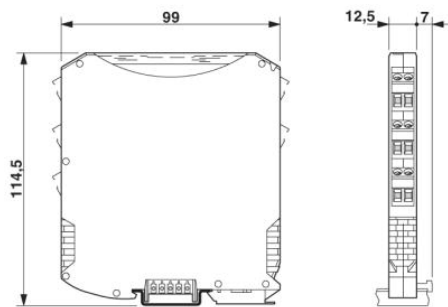
Certification: CUL Listed, GL, UL Listed
 Certification Ex: CUL-EX LIS, IECEX, UL-EX LIS

Diagrams/Drawings

Block diagram



Dimensioned drawing



Address

PHOENIX CONTACT Inc., USA
586 Fulling Mill Road
Middletown, PA 17057, USA
Phone (800) 888-7388
Fax (717) 944-1625
<http://www.phoenixcon.com>



© 2011 Phoenix Contact
Technical modifications reserved;