

# MACX MCR-SL-CAC- 5-I-UP


Order No.: 2810625



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2810625>


Current measuring transducer for 1 A and 5 A AC, the output signal 0...20 mA or 4...20 mA, can be configured using a DIP switch with an operating mode indication through an LED



| Commercial data          |   |
|--------------------------|---|
| GTIN (EAN)               | <br>4 046356 153782 |
| sales group              | H531  |
| Pack                     | 1 pcs.  |
| Customs tariff           | 85437090  |
| Catalog page information | Page 716 (IF-2011)  |

**Product notes**

WEEE/RoHS-compliant since:  
01/23/2007



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## Product description

The MACX MCR-SL-CAC-5-I(-UP) current measuring transducers convert sinusoidal alternating currents of 1 A or 5 A into standard analog signals 0...20 mA or 4...20 mA. The DIP switches, which can be accessed on the upper side of the housing, can be used to configure the input and output current.

The MACX MCR-SL-CAC-5-I current transducer contains a supply voltage range of 19.2 V DC to 30 V DC.

The MACX MCR-SL-CAC-5-I current transducer contains a long range version with a supply voltage range of 19.2 V AC/DC to 253 V AC/DC.

#### Technical data

##### Input data

|                                      |                                  |
|--------------------------------------|----------------------------------|
| Configurable/programmable            | Via DIP switches                 |
| Operate threshold                    | 0.3 % (1 A)                      |
|                                      | 0.45 % (5 A)                     |
| Setting range for min. input current | 0 A AC ... 1 A AC (configurable) |
| Setting range for max. input current | 0 A AC ... 5 A AC (configurable) |
| Overload capacity                    | 2 x I <sub>N</sub> (continuous)  |
| Surge strength                       | 20 x I <sub>N</sub> (1 s)        |
| Nominal frequency f <sub>N</sub>     | 50 Hz                            |
| Frequency measuring range            | 45 Hz ... 65 Hz                  |
| Connection method                    | Screw terminal block             |

##### Output data

|                                 |                                    |
|---------------------------------|------------------------------------|
| Output name                     | Current output                     |
| Configurable/programmable       | Via DIP switches                   |
| Current output signal           | 0 mA ... 20 mA (configurable)      |
|                                 | 4 mA ... 20 mA (configurable)      |
| Max. output current             | 25 mA                              |
| Load/output load current output | < 500 Ω (at 20 mA)                 |
| Status display                  | LED red (error), LED green (ready) |

##### Power supply

|                          |   |
|--------------------------|---|
| Supply voltage range     | 19.2 V AC/DC ... 253 V AC/DC                                    |
| Max. current consumption | < 30 mA (at U <sub>B</sub> =24 V DC, I <sub>OUT</sub> =20 mA)   |
|                          | < 13 mA (at U <sub>B</sub> =230 V AC, I <sub>OUT</sub> =20 mA)  |
| Power consumption        | < 0.9 W (at U <sub>B</sub> =24 V DC, I <sub>OUT</sub> =20 mA)   |
|                          | < 3.4 W (at U <sub>B</sub> = 230 V AC, I <sub>OUT</sub> =20 mA) |

##### Connection data

|                                       |                     |
|---------------------------------------|---------------------|
| Connection method                     | Screw connection    |
| Conductor cross section solid min.    | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.    | 2.5 mm <sup>2</sup> |
| Conductor cross section stranded min. | 0.2 mm <sup>2</sup> |

|  |                     |
|--|---------------------|
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 14                  |
| Stripping length                       | 8 mm                |
| Screw thread                           | M3                  |

#### General data

|   |   |
|---|---|
| Width                                   | 22.5 mm   |
| Height                                  | 104 mm  |
| Depth                                   | 114.5 mm  |
| Maximum transmission error              | ≤ 0.5 % (of nominal range value under nominal conditions) |
| Maximum temperature coefficient         | < 0.02 %/K  |
| Temperature coefficient, typical        | < 0.015 %/K   |
| Step response (10-90%)                  | max. 300 ms<br>Typ. 200 ms                                |
| Ambient temperature (operation)         | -20 °C ... 65 °C (-4°F ... 149°F)                         |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C (-40°F...185°F)                          |
| Maximum altitude                        | 2000 m  |
| Degree of protection                    | IP20  |
| Surge voltage category                  | III   |
| Pollution degree                        | 2   |
| Test voltage input/output               | 4 kV (50 Hz, 1 min.)                                      |
| Test voltage output/power supply        | 2 kV (50 Hz, 1 min.)                                      |
| Electromagnetic compatibility           | Conformance with EMC Directive 2004/108/EC                |
| Noise emission                          | EN 61000-6-4  |
| Noise immunity                          | EN 61000-6-2  |
| Color                                   | green   |
| Housing material                        | Polyamide PA non-reinforced                               |
| Mounting position                       | Any   |
| Conformance                             | CE-compliant  |
| ATEX                                    | Ex II 3 G Ex nA II T4 X                                   |
| UL, USA / Canada                        | UL 508 Recognized   |

#### Certificates / Approvals

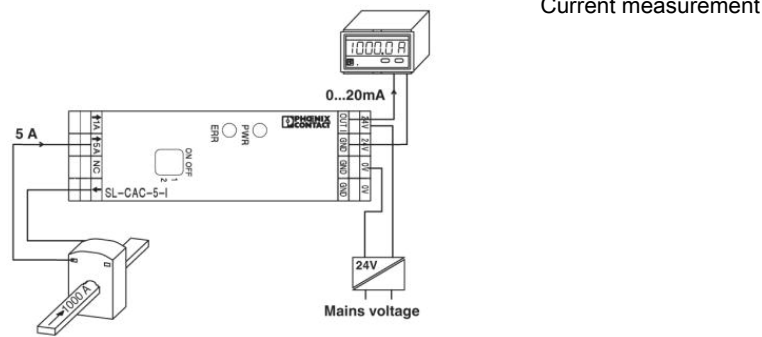


Certification CUL, UL

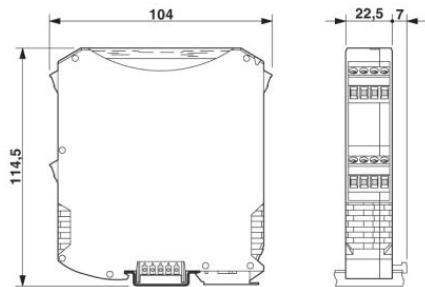
Certification Ex: PxC-EX

## Diagrams/Drawings

### Application drawing



### Dimensioned drawing



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