

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

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.

Your advantages

- Input/output can be configured via DIP switches



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 153782 |
| GTIN | 4046356153782 |

Technical data

Note

| | |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

Dimensions

| | |
|--------|----------|
| Width | 22.5 mm |
| Height | 104 mm |
| Depth | 114.5 mm |

Ambient conditions

| | |
|---|--------------------------------------|
| Ambient temperature (operation) | -20 °C ... 65 °C (-4 °F...149 °F) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C (-40 °F ... 185 °F) |

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

Technical data

Ambient conditions

| | |
|----------------------------------|---|
| Maximum altitude | 2000 m |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |
| Degree of protection | IP20 |
| Noise immunity | EN 61000-6-2 When being exposed to interference, there may be minimal deviations. |

Input data

| | |
|--------------------------------------|---------------------------------|
| Configurable/programmable | Via DIP switches |
| Input current range | 0 A ... 5 A |
| Setting range for min. input current | 0 A AC ... 1 A (configurable) |
| Setting range for max. input current | 0 A AC ... 5 A (configurable) |
| Overload capacity | 2 x I _N (continuous) |
| Surge strength | 20 x I _N (1 s) |
| Nominal frequency f _N | 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 (20 mA) |
| Ripple | < 10 mV _{PP} (for 500 Ω at 20 mA) |
| Status display | LED red (error), LED green (ready) |

Switching output

| | |
|-------------|---------------------|
| Output name | No switching output |
|-------------|---------------------|

Power supply

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

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross section solid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

Technical data

Connection data

| | |
|-----------------------------|-----------|
| Conductor cross section AWG | 24 ... 14 |
|-----------------------------|-----------|

General

| | |
|----------------------------------|---|
| 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%) | ≤ 300 ms |
| | typ. 200 ms |
| Overvoltage category | III |
| Degree of pollution | 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 |
| Noise emission | EN 61000-6-4 |
| Noise immunity | EN 61000-6-2 When being exposed to interference, there may be minimal deviations. |
| Color | gray |
| Housing material | Polyamide PA non-reinforced |
| Mounting position | any |
| Conformance | CE-compliant |
| ATEX | # II 3 G Ex nA IIC T4 Gc X |
| UL, USA/Canada | UL 508 Recognized |

Standards and Regulations

| | |
|----------------------------------|--------------------------------|
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |
| Connection in acc. with standard | CUL |
| Standards/regulations | EN 61000-4-2 |
| | EN 61000-4-3 |
| | EN 61000-4-4 |
| Comments | Criterion B |
| Standards/regulations | EN 61000-4-5 |
| | EN 61000-4-6 |
| Conformance | CE-compliant |
| ATEX | # II 3 G Ex nA IIC T4 Gc X |
| UL, USA/Canada | UL 508 Recognized |

Environmental Product Compliance

| | |
|------------|--|
| REACH SVHC | N,N-dimethylacetamide 127-19-5 |
| | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 |

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

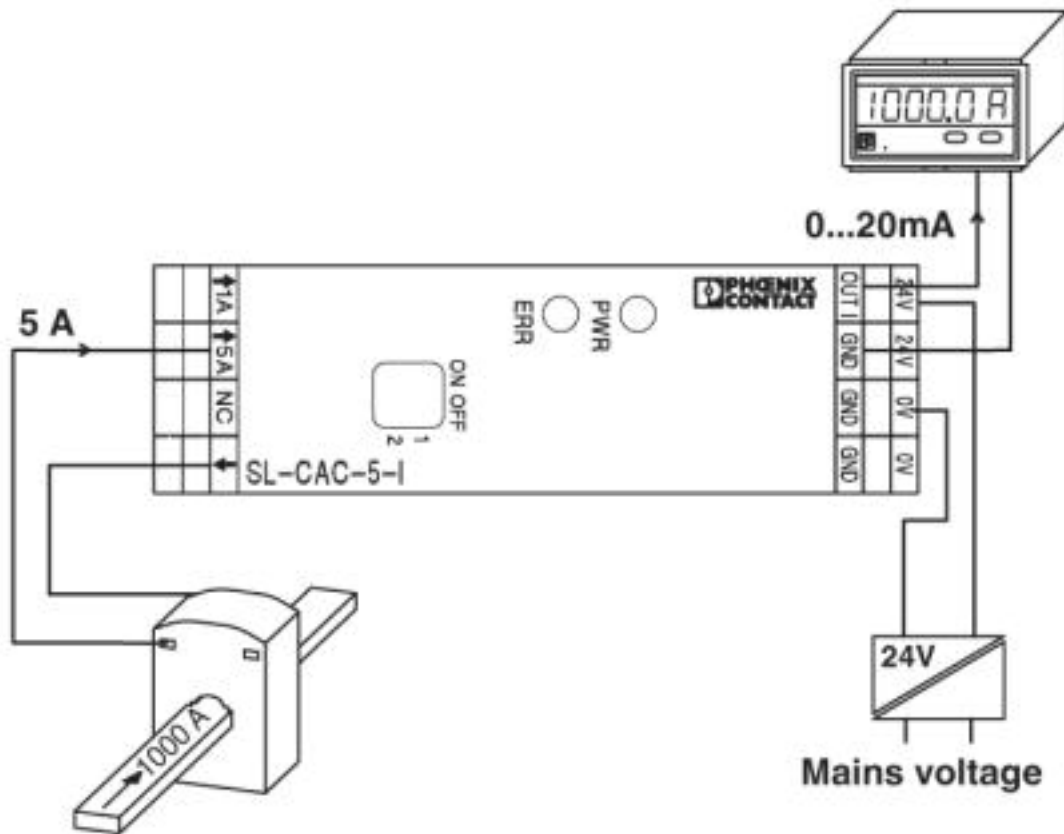
Technical data

Environmental Product Compliance

| | |
|--|---|
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |
|--|---|

Drawings

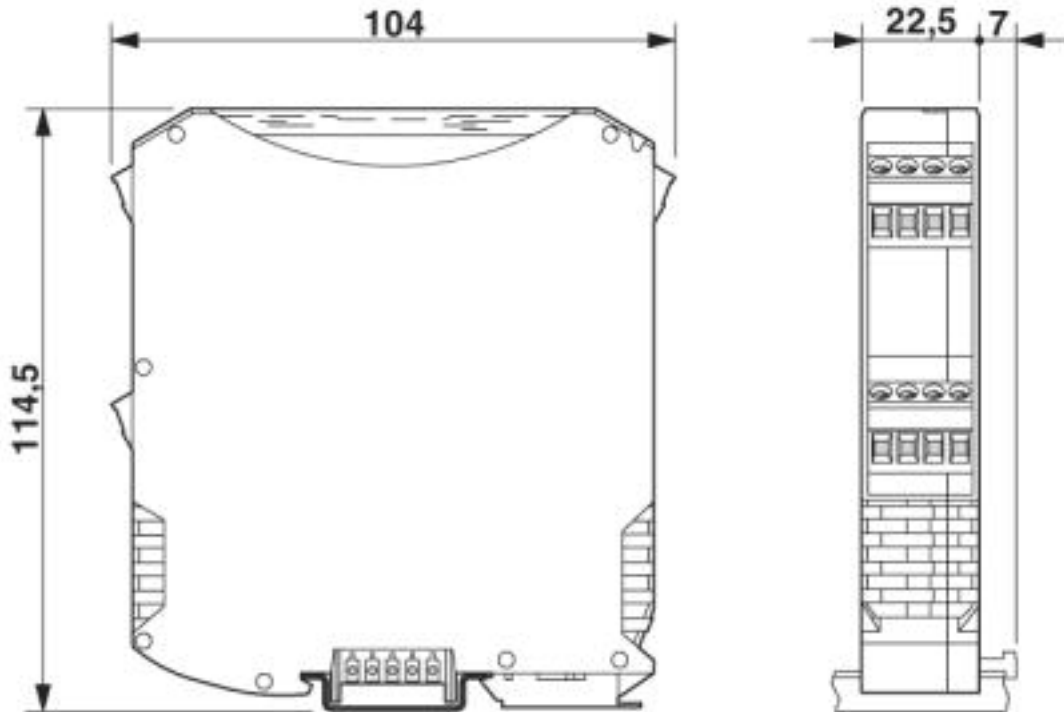
Application drawing



Current measurement

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

Dimensional drawing



Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

ATEX / EAC Ex

Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

Current transducers - MACX MCR-SL-CAC- 5-I-UP - 2810625

Approvals

cULus Recognized



Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>