

# 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://download.phoenixcontact.com>)



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.

## Product Features

- Input/output can be configured via DIP switches



## Key commercial data

package_quantity	1
GTIN	4046356153782

## Technical data

### 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)
Maximum altitude	2000 m
Degree of protection	IP20

### Input data

Configurable/programmable	Via DIP switches
Operate threshold	0.3 % (1 A)
Operate threshold	0.45 % (5 A)
Setting range for min. input current	0 A AC ... 1 A AC (configurable)

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

## Technical data

### Input data

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)
Current output signal	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)

### 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 <sub>B</sub> =24 V DC, I <sub>OUT</sub> =20 mA)
Max. current consumption	< 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)
Power consumption	< 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

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
Step response (10-90%)	typ. 200 ms
Surge voltage category	III

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

## Technical data

### General

<b>Pollution degree</b>	2
<b>Test voltage input/output</b>	4 kV (50 Hz, 1 min.)
<b>Test voltage output/power supply</b>	2 kV (50 Hz, 1 min.)
<b>Electromagnetic compatibility</b>	Conformance with EMC Directive 2004/108/EC
<b>Noise emission</b>	EN 61000-6-4
<b>Noise immunity</b>	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
<b>Color</b>	green
<b>Housing material</b>	Polyamide PA non-reinforced
<b>Mounting position</b>	Any
<b>Conformance</b>	CE-compliant
<b>ATEX</b>	# II 3 G Ex nA IIC T4 Gc X
<b>UL, USA / Canada</b>	UL 508 Recognized

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27200303
<b>eCl@ss 4.1</b>	27200303
<b>eCl@ss 5.0</b>	27200303
<b>eCl@ss 5.1</b>	27200303
<b>eCl@ss 6.0</b>	27200303
<b>eCl@ss 7.0</b>	27142316
<b>eCl@ss 8.0</b>	27142316

### ETIM

<b>ETIM 2.0</b>	EC001440
<b>ETIM 3.0</b>	EC001440
<b>ETIM 4.0</b>	EC001440
<b>ETIM 5.0</b>	EC001440

### UNSPSC

<b>UNSPSC 6.01</b>	30211506
<b>UNSPSC 7.0901</b>	39121008
<b>UNSPSC 11</b>	39121008
<b>UNSPSC 12.01</b>	39121008
<b>UNSPSC 13.2</b>	39121008

## approvals

---

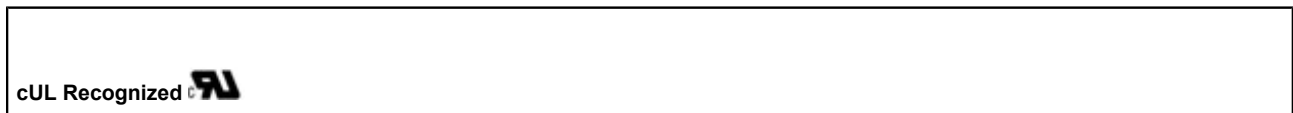
UL Recognized / cUL Recognized / cULus Recognized /

---

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

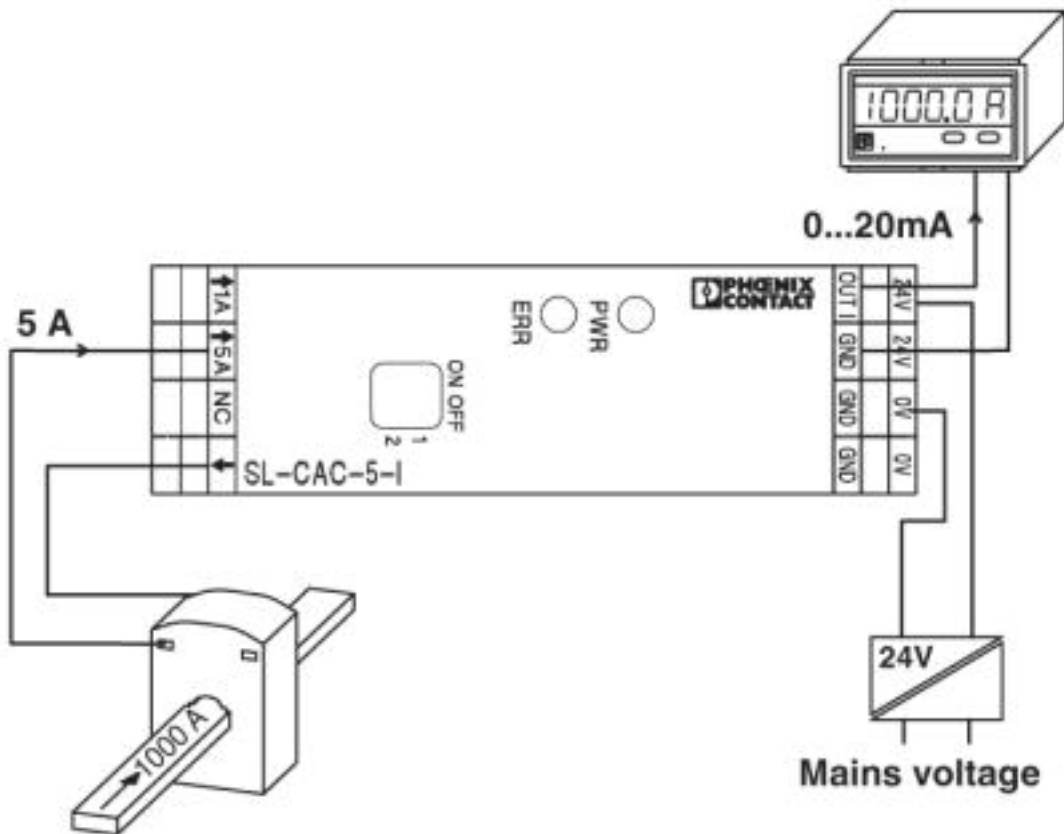
approvals

Approval details



Drawings

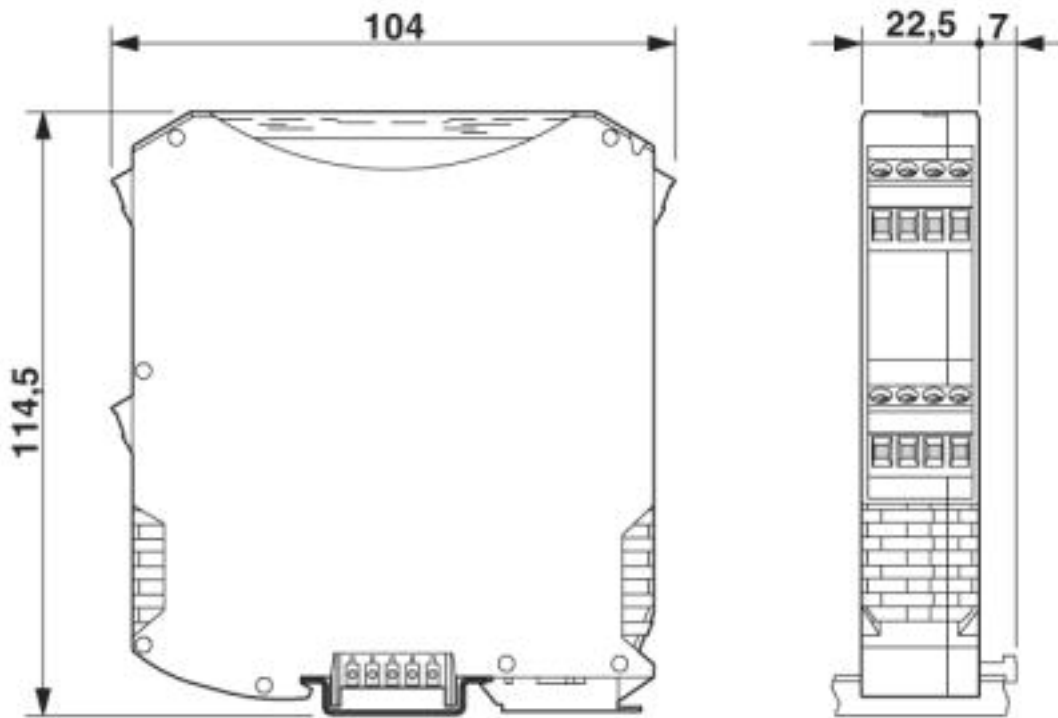
Application drawing



Current measurement

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

Dimensioned drawing



© Phoenix Contact 2013 - all rights reserved  
<http://www.phoenixcontact.com>