

# MACX MCR-SL-CAC- 5-I

Order No.: 2810612

The figure shows 2810625 MACX MCR-SL-CAC-5-I-UP




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2810612>

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)	 4 046356 153775
sales group	H531
Pack	1 pcs.
Customs tariff	85437090
Catalog page information	Page 716 (IF-2011)

## Product notes

WEEE/RoHS-compliant since:  
08/21/2006



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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

Nominal supply voltage	24 V DC (-20%...+25%)
Supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	< 32 mA (at U <sub>B</sub> =24 V DC, 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)

#### 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 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	II
Pollution degree	2
Test voltage input/output	4 kV (50 Hz, 1 min.)
Test voltage output/power supply	1.5 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**



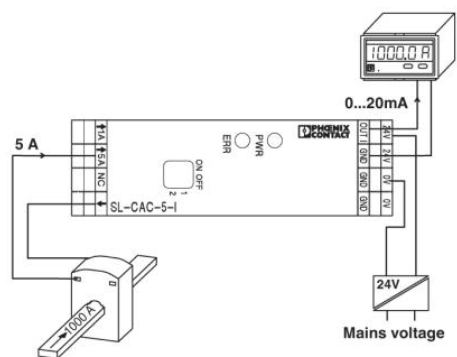
Certification CUL, UL  
 Certification Ex: PxC-EX

**Accessories**

Item	Designation	Description
<b>General</b>		
2709561	ME 17,5 TBUS 1,5/ 5-ST-3,81 GN	DIN rail connector for DIN rail power supply unit, gold-plated contacts, for DIN rail mounting, 5-pos.
2707437	ME 22,5 TBUS 1,5/ 5-ST-3,81 GN	DIN rail connector for current transducers, gold-plated contacts, for DIN rail mounting, 5-pos.
2866653	MINI-PS-100-240AC/24DC/1.5/ EX	DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A, ATEX approval
2866983	MINI-SYS-PS-100-240AC/24DC/1.5	DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A

**Diagrams/Drawings**

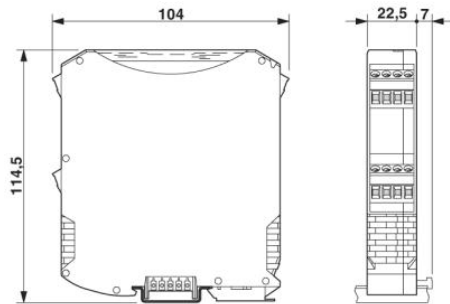
Application drawing



Current measurement

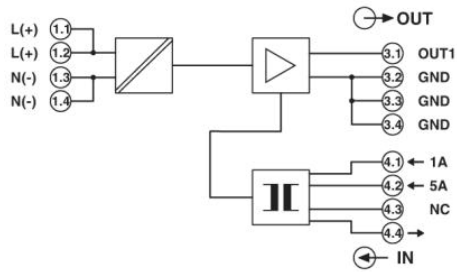
Dimensioned drawing

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Circuit diagram

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