

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

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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.

Why buy this product

- Input/output can be configured via DIP switches



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 153782
GTIN	4046356153782

Technical data

Note

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

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Ambient conditions

Maximum altitude	2000 m
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Input data

Configurable/programmable	Via DIP switches
Input current range	0 A ... 5 A
Operate threshold	0.3 % (1 A)
	0.45 % (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 (at 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
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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
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²

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

Technical data

Connection data

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
	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	green
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
China RoHS	Environmentally Friendly Use Period = 50

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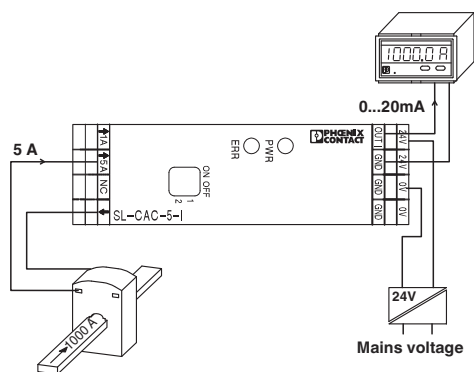
Technical data

Environmental Product Compliance

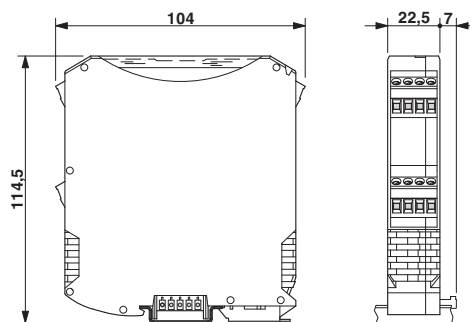
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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Drawings

Application drawing



Dimensional drawing



Current measurement

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

ATEX

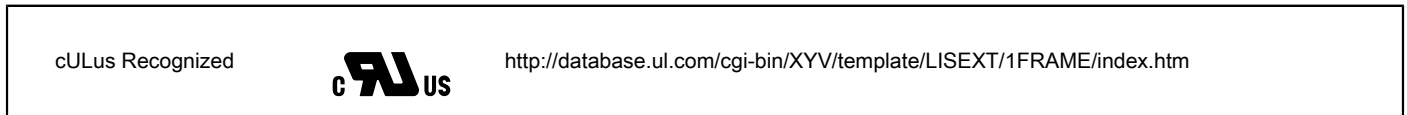
Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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Approvals



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