MCR-SL-S-100-U - Current measuring transducer

2813457

https://www.phoenixcontact.com/us/products/2813457

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MCR current measuring transducer, for measuring sinusoidal and non-sinusoidal alternating currents, input current 0...100 A, output voltage 0...(5) 10 V

Product description

Our MCR AC current measuring transducers measure AC currents and convert them into an analog standard signal. The hinged Rogowski sensor is ideal for easy installation and retrofitting.

Your advantages

- Can be retrofitted with open-up Rogowski coil
- 30 ... 6000 Hz true r.m.s. value measurement
- Measuring range selection via slide switch

Commercial data

Item number	2813457
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA22
GTIN	4046356043632
Weight per piece (including packing)	145 g
Weight per piece (excluding packing)	137.1 g
Customs tariff number	85437090
Country of origin	JP

Technical data

Product properties

Product type	Current measuring transducer

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Maximum power dissipation for nominal condition	1 W
Test voltage input/output	4.13 kV AC (50 Hz, 60 s)
Step response (10-90%)	< 340 ms
Maximum temperature coefficient	< 0.035 %/K
Maximum transmission error	< 1 % (of final value)
Rated insulation voltage	300 V AC (to earth)

Supply

Nominal supply voltage	24 V DC
Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	< 30 mA

Input data

Signal

Configurable/programmable	Yes
Current input signal	0 A ... 100 A

Measurement

Input current range	0 A AC ... 50 A AC
	0 A AC ... 75 A AC
	0 A AC ... 100 A AC
Setting range for min. input current	0 A AC ... 50 A AC
Setting range for max. input current	0 A AC ... 100 A AC
Overload capacity	Depending on laid conductor
Surge strength	Depending on through connected conductor
Frequency measuring range	30 Hz ... 6000 Hz
Curve type	Sinusoidal and non-sinusoidal
Operate threshold	1 % (of final value)

Output data

Signal: Voltage

Voltage output signal	0 V ... 5 V
	0 V ... 10 V
Max. voltage output signal	(0 V ... 10 V) 14 V, (0 V ... 5 V) 7 V

Load/output load voltage output	≥ 10 kΩ

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm (4,4 ... 5,31 lbf-in.)
Connection method	Through connection

Dimensions

Item dimensions

Width	55 mm
Height	85 mm
Depth	70.5 mm

Circular conductor

Diameter	≤ 18.5 mm

Material specifications

Color	green (RAL 6021)
Housing material	Polyamide PA non-reinforced

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

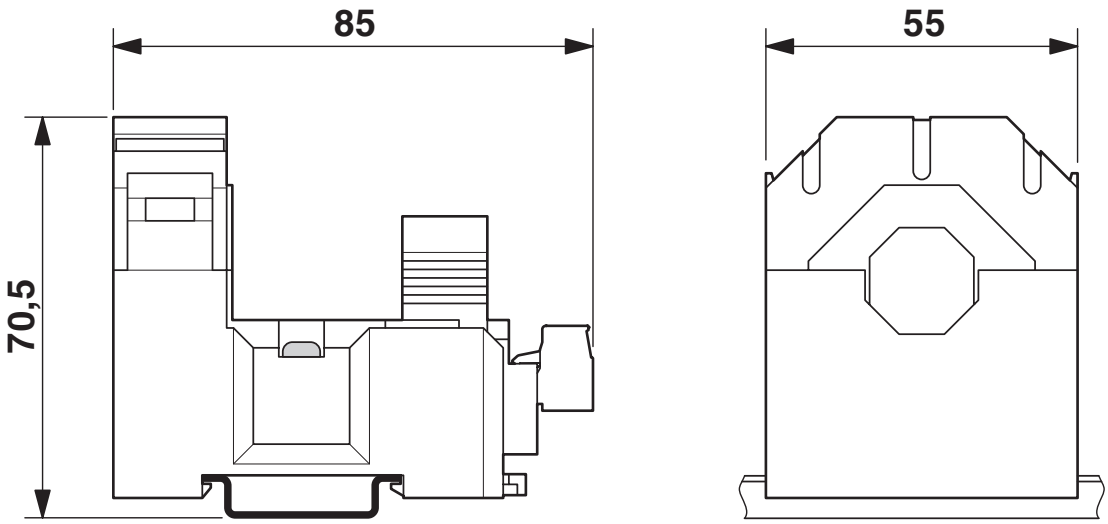
Identification	UL/C-UL Listed UL 508
	Class I, Div. 2, Groups A, B, C, D T4A
	Class I, Zone 2, Group IIC T4A
	Or Non-Hazardous Locations only

Mounting

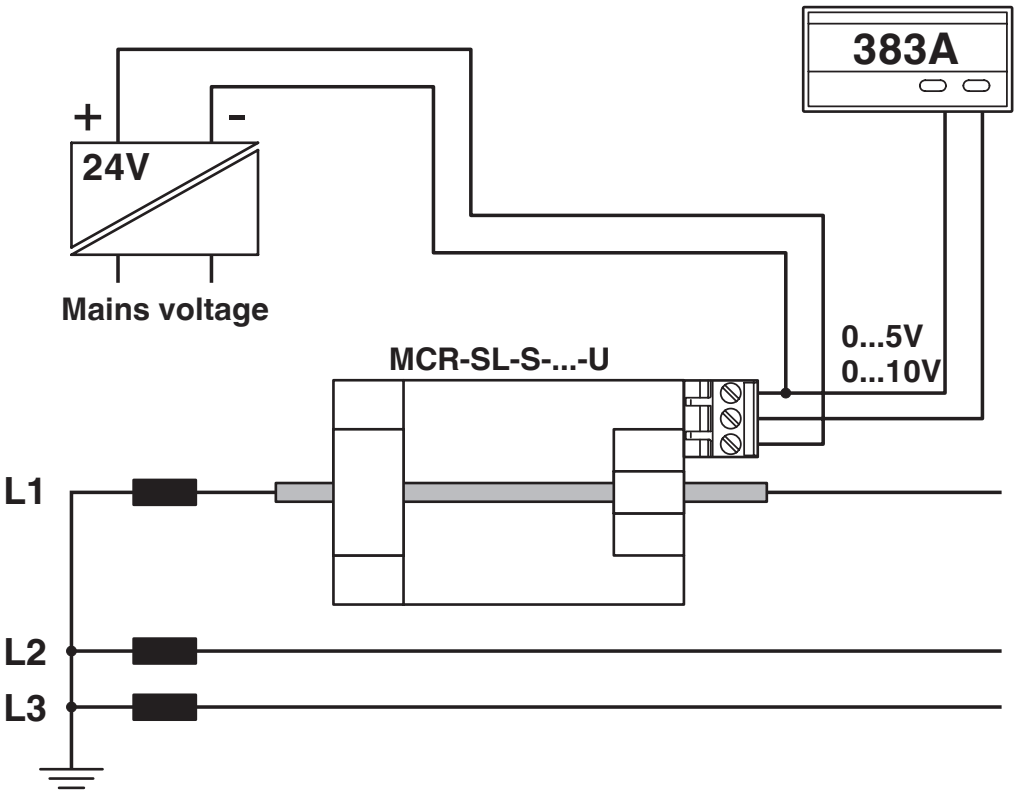
Mounting type	DIN rail mounting
Mounting position	any

Drawings

Dimensional drawing

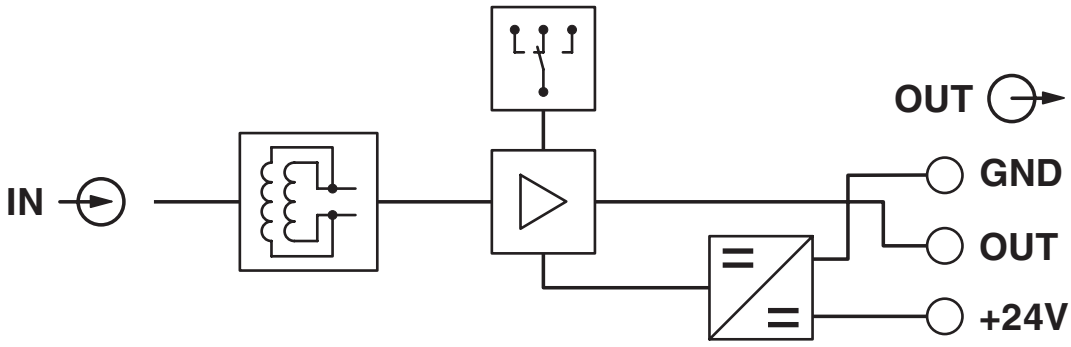


Application drawing



Current measurement

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2813457

EAC
Approval ID: RU*DE.*08.B.01852-19

cULus Listed
Approval ID: E123528-20110617

Classifications

ECLASS

ECLASS-13.0	27210123
ECLASS-15.0	27210123

ETIM

ETIM 10.0	EC002475

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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