

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

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)	143.2 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

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Load/output load voltage output	$\geq 10 \text{ k}\Omega$
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Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
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	$\leq 18.5 \text{ mm}$
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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
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UKCA

Certificate	UKCA-compliant
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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
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Mounting position	any
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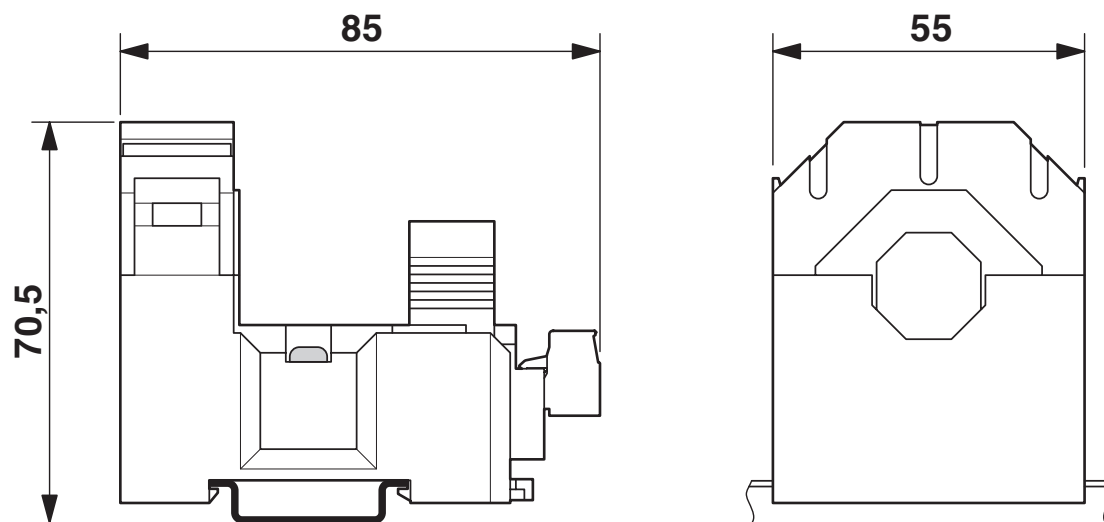


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Drawings

Dimensional drawing



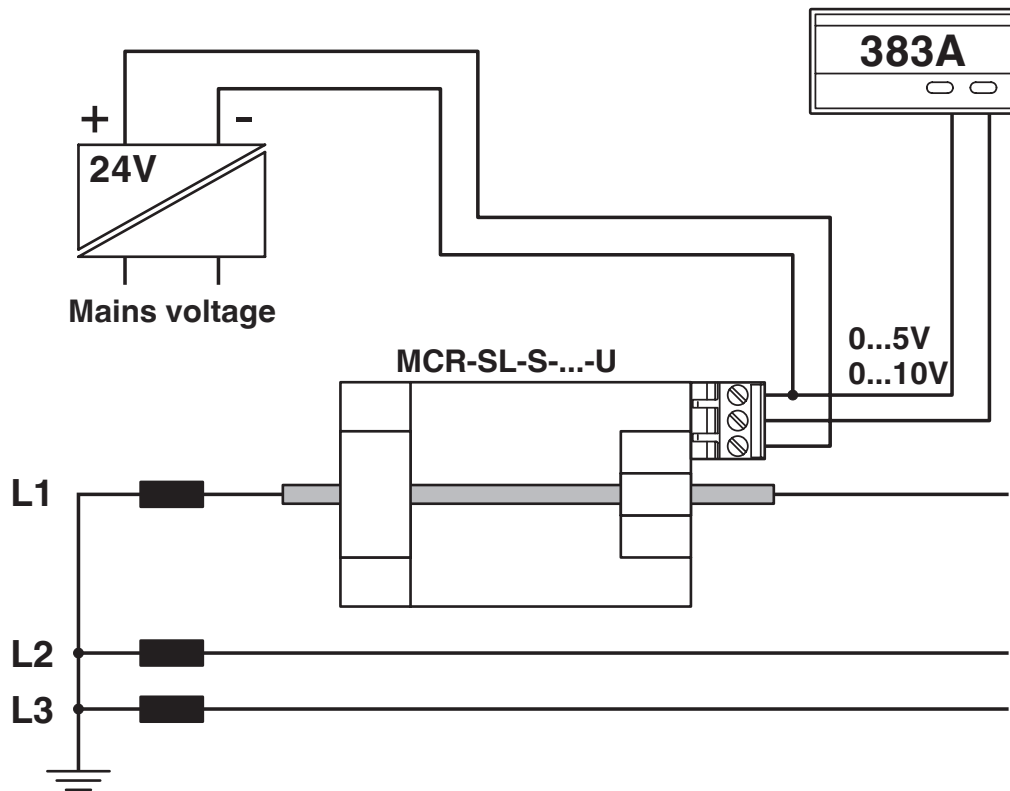
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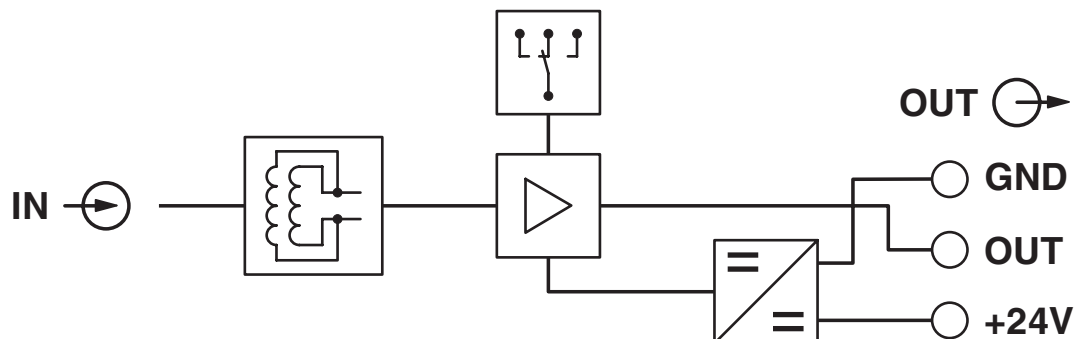


Application drawing



Current measurement

Circuit diagram



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Approvals

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EAC

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



UL Listed

Approval ID: E123528



cUL Listed

Approval ID: E123528

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Classifications

ECLASS

ECLASS-13.0	27210123
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ETIM

ETIM 9.0	EC002475
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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