

# MCR-SL-S-100-U - Current transducers



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	CK4A22
Catalog page	Page 235 (C-5-2019)
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 transducer
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### 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	≥ 10 kΩ
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## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
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
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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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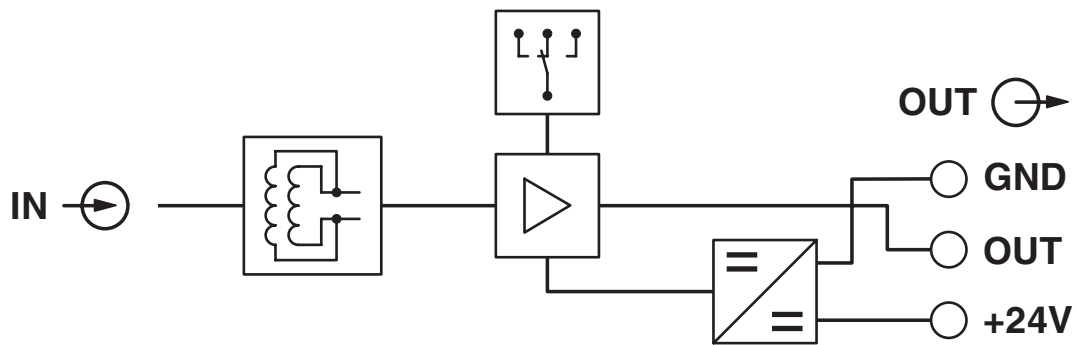
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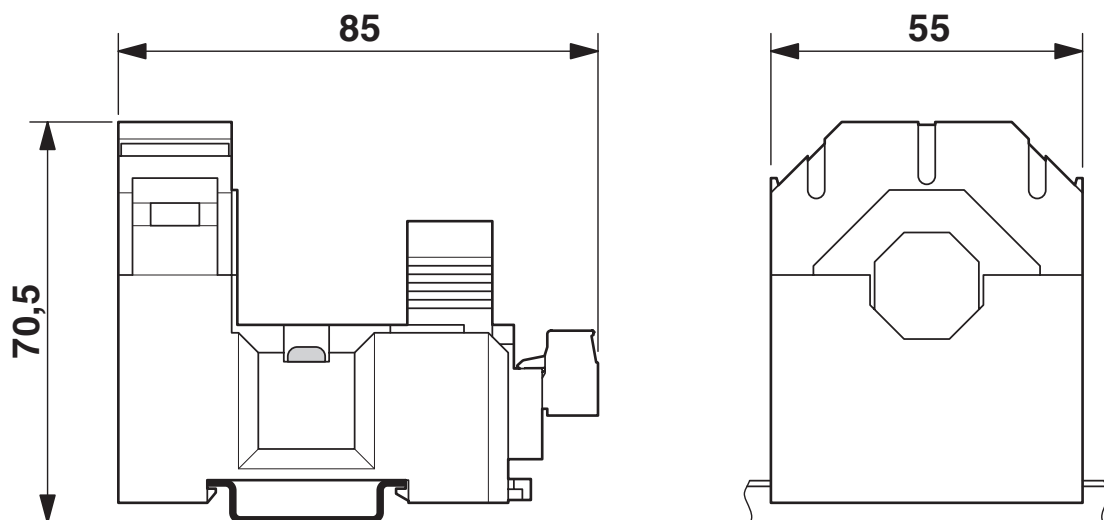
<https://www.phoenixcontact.com/us/products/2813457>

## Drawings

Circuit diagram



Dimensional drawing

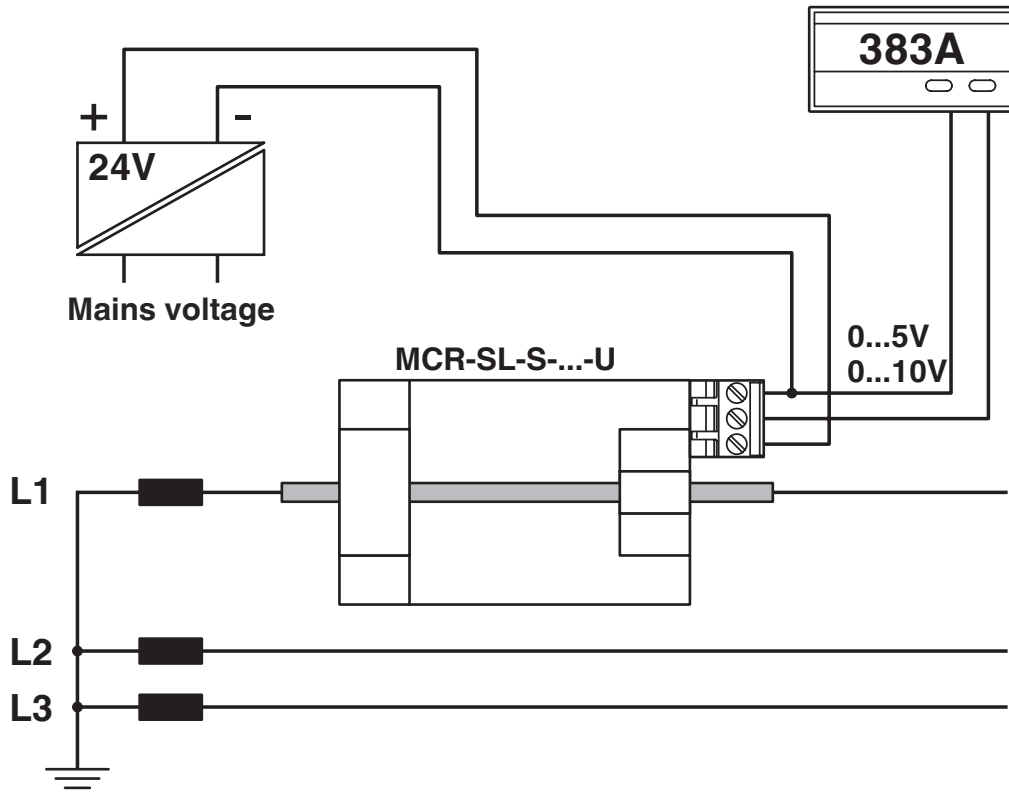


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Application drawing



Current measurement

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## 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



**UL Listed**

Approval ID: FILE E 123528



**cUL Listed**

Approval ID: FILE E 123528

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27210123
ECLASS-12.0	27210123
ECLASS-13.0	27210123

### ETIM

ETIM 9.0	EC002475
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### UNSPSC

UNSPSC 21.0	39121000
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## Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 25; For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
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