

MCR-SL-CUC-100-I - Universal current transducer



2308027

<https://www.phoenixcontact.com/us/products/2308027>

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Universal current transducer, for measuring AC, DC, and distorted currents, 0 ... 100 A input current, 4 ... 20 mA output

Product description

MCR AC/DC current measuring transducers measure direct and alternating currents of any waveform, as well as distorted currents, and convert them into a standard analog signal.

Your advantages

- Variable mounting on DIN rail and mounting panel
- Compact dimensions also enable distributed use
- Simple connection technology thanks to COMBICON plug-in connection terminal blocks
- 3-way isolation
- Universal current measurement, no shunt required

Commercial data

Item number	2308027
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA31
GTIN	4046356433808
Weight per piece (including packing)	293 g
Weight per piece (excluding packing)	290 g
Customs tariff number	90303370
Country of origin	CN

Technical data

Product properties

Product type	Current measuring transducer
Insulation characteristics	
Overvoltage category	III
Pollution degree	2

Electrical properties

Linearity error	$\leq \pm 1\%$ (From the range end value)
Maximum power dissipation for nominal condition	1 W
Step response (10-90%)	150 ms
Temperature coefficient, typical	0.02 %/K (0 °C ... 60 °C)
	0.04 %/K (-40 °C ... 65 °C)
Maximum transmission error	$\leq \pm 1\%$ (of final value)
Rated insulation voltage	300 V AC

Electrical isolation Input/output

Test voltage	3.5 kV AC (50 Hz, 60 s)
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Electrical isolation Input/power supply

Test voltage	3.5 kV AC (50 Hz, 60 s)
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General

Accuracy class	1
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Supply

Nominal supply voltage	24 V DC
Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	$(30 + I_{OUT})$ mA
Power consumption	1.65 W

Input data

Measurement

Number of inputs	1
Input current range	0 A AC/DC ... 100 A AC/DC
Overload capacity	$6 \times I_{IN}$
Frequency measuring range	20 Hz ... 6000 Hz (0 Hz)
Curve type	AC, DC or distorted currents

Current transformer

Rated frequency: Standard converter	20 Hz ... 6000 Hz
Primary rated current I_{pn}	100 A
Accuracy class	1

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Output data

Signal: Current

Current output signal	4 mA ... 20 mA
Max. current output signal	< 25 mA
Load/output load current output	< 300 Ω

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.25 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Connection method	Through connection

Dimensions

Item dimensions

Width	90 mm
Height	33.8 mm
Depth	85 mm

Circular conductor

Diameter	32 mm
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Material specifications

Color	green (RAL 6021)
Housing material	Franyl B63 V0 GV30

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

CE

Certificate	CE-compliant
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UL, USA/Canada

Identification	UL/C-UL Listed UL 508
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EMC data

Noise immunity	EN 61000-6-2
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Noise emission

Standards/regulations	EN 61000-6-4
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Mounting

Mounting type	DIN rail mounting
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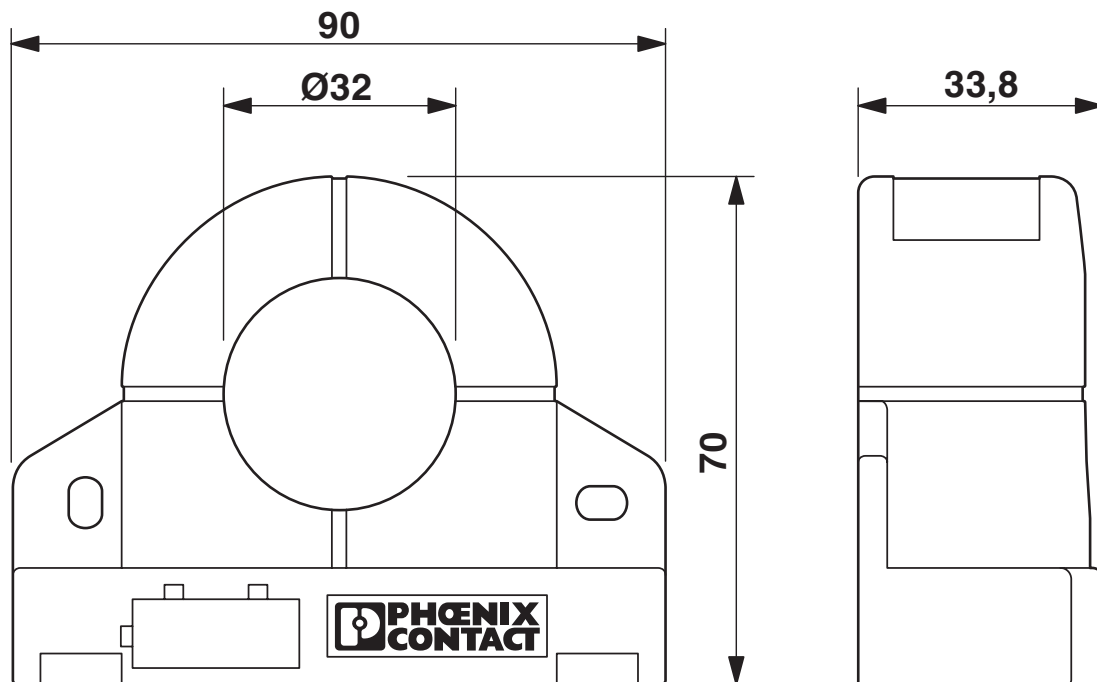
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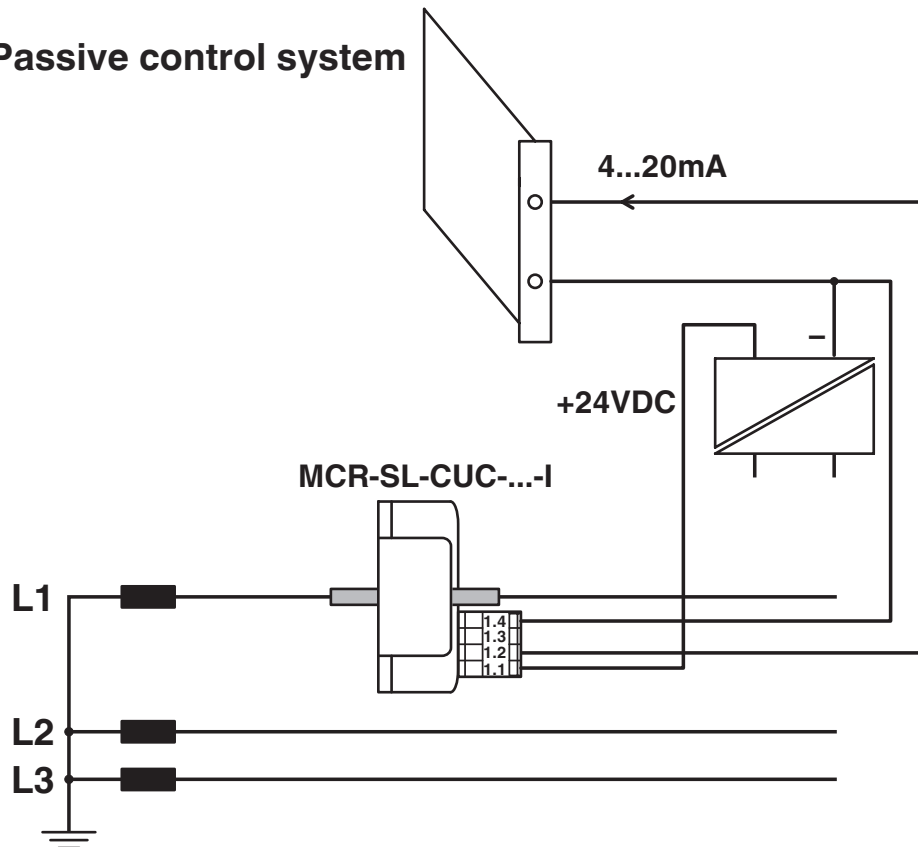
Drawings

Dimensional drawing



Application drawing

Passive control system



Current monitoring

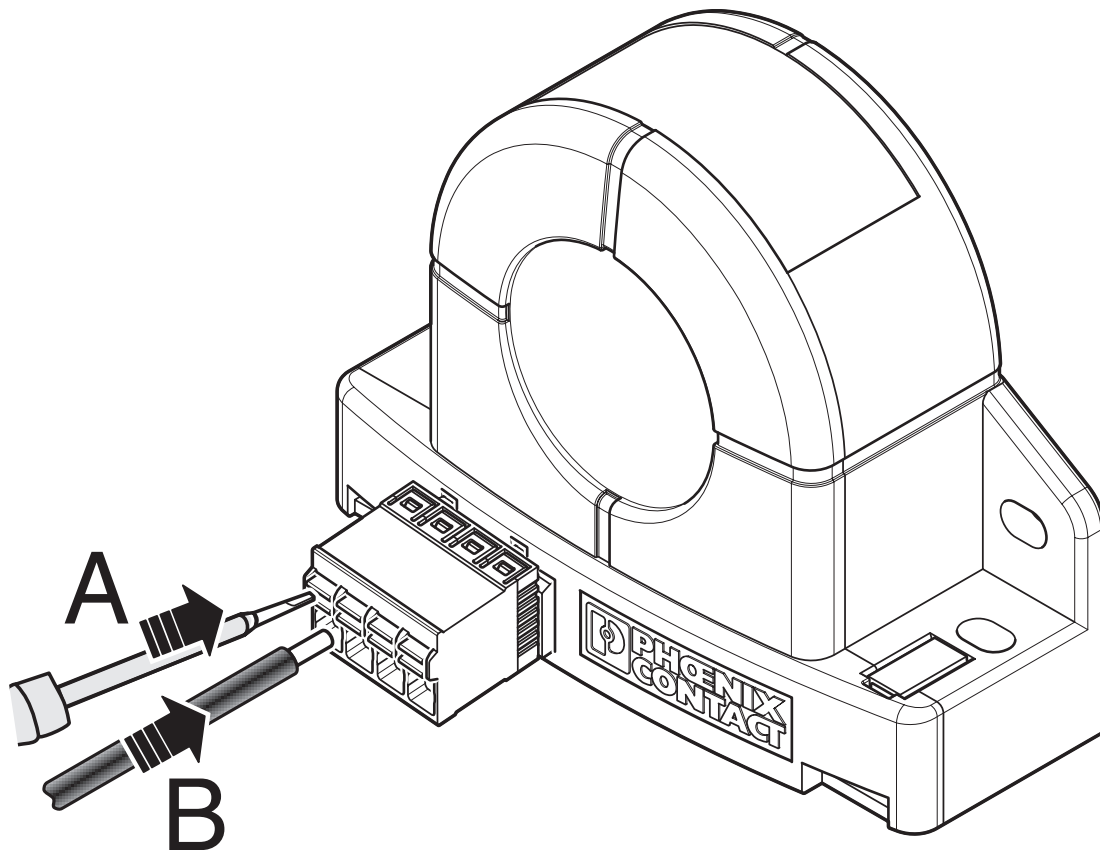
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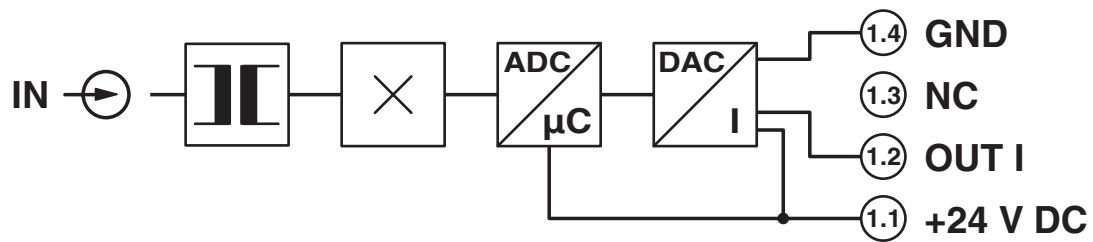
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Schematic diagram



Circuit diagram



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Approvals

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EAC

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



cULus Listed

Approval ID: E123528-20110617

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Classifications

ECLASS

ECLASS-13.0	27210123
ECLASS-15.0	27210123

ETIM

ETIM 10.0	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-E
	No hazardous substances above the limits

EU REACH SVHC

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