

# Universal current transducer - MCR-SL-CUC-500-I



2308085

<https://www.phoenixcontact.com/gb/products/2308085>

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Universal current transducer, for measuring DC, AC, and distorted currents, 0 ... 500 A input current, 4 ... 20 mA output

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## Your advantages

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

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## Commercial Data

Item number	2308085
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CK4A31
Product Key	CK4A31
Catalog Page	Page 229 (C-5-2019)
GTIN	4046356566971
Weight per Piece (including packing)	294.8 g
Weight per Piece (excluding packing)	286.5 g
Customs tariff number	90303370
Country of origin	CN

## Technical Data

### Product properties

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

### Electrical properties

Linearity error	<math>\pm 1\%</math> (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	<math>\pm 1\%</math> (of final value)

### 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)
Rated insulation voltage	300 V AC

### 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 ... 500 A AC/DC
Overload capacity	$3.6 \times I_{IN}$
Frequency measuring range	20 Hz ... 6000 Hz (0 Hz)
Connection method	Cable design: 32 mm diameter
Curve type	AC, DC or distorted currents

### Current transformers

Rated frequency: Standard converter	20 Hz ... 6000 Hz
Primary rated current $I_{pn}$	500 A
Accuracy class	1

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## Output data

Signal: Current

Output name	Current output
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 solid	0.25 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 ... 12

## Dimensions

Dimensional drawing	
Width	90 mm
Height	33.8 mm
Depth	85 mm

## Material specifications

Housing material	Frianyl B63 V0 GV30
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## Connector

Housing material	Frianyl B63 V0 GV30
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## 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

## Approval data

CE

Certificate	CE-compliant
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CE

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Certificate	UKCA-compliant
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## EMC data

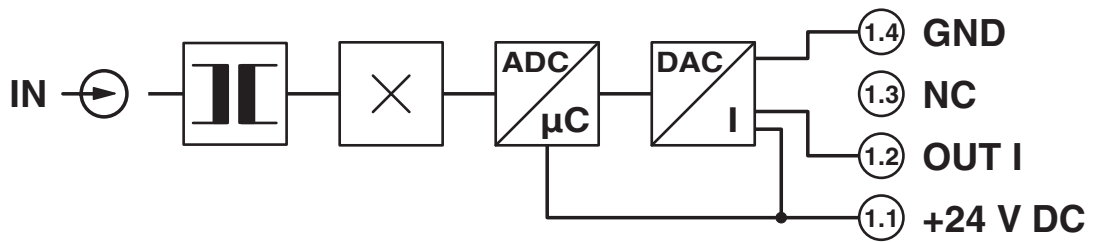
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2

## Mounting

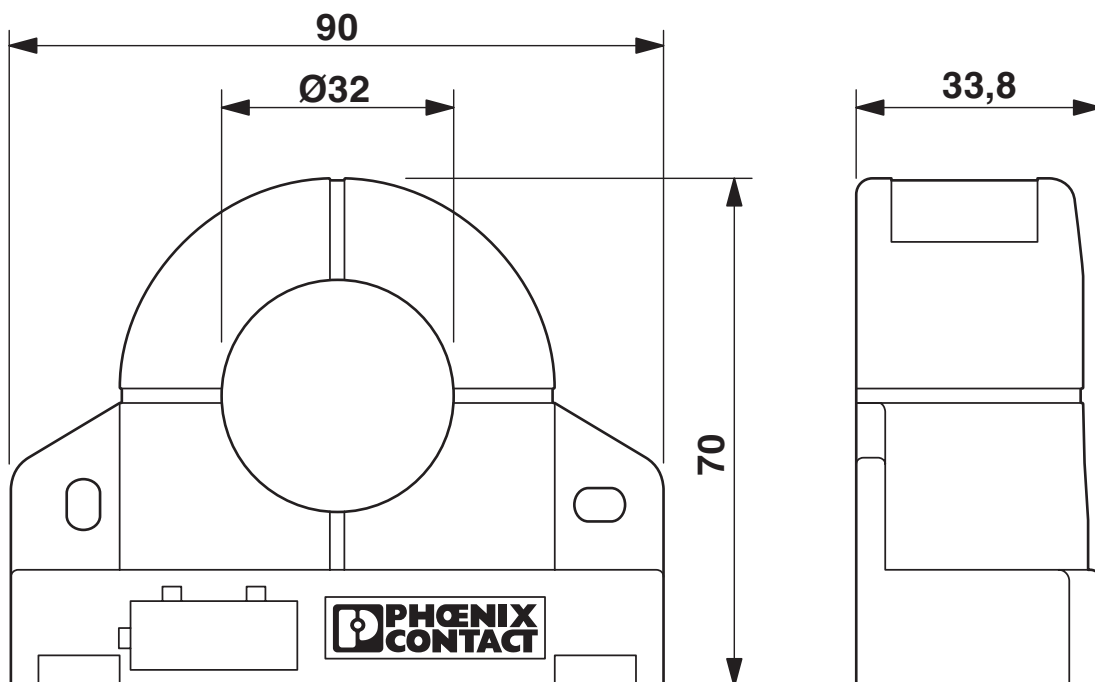
Mounting type	DIN rail mounting
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## Drawings

Circuit diagram



Dimensional drawing

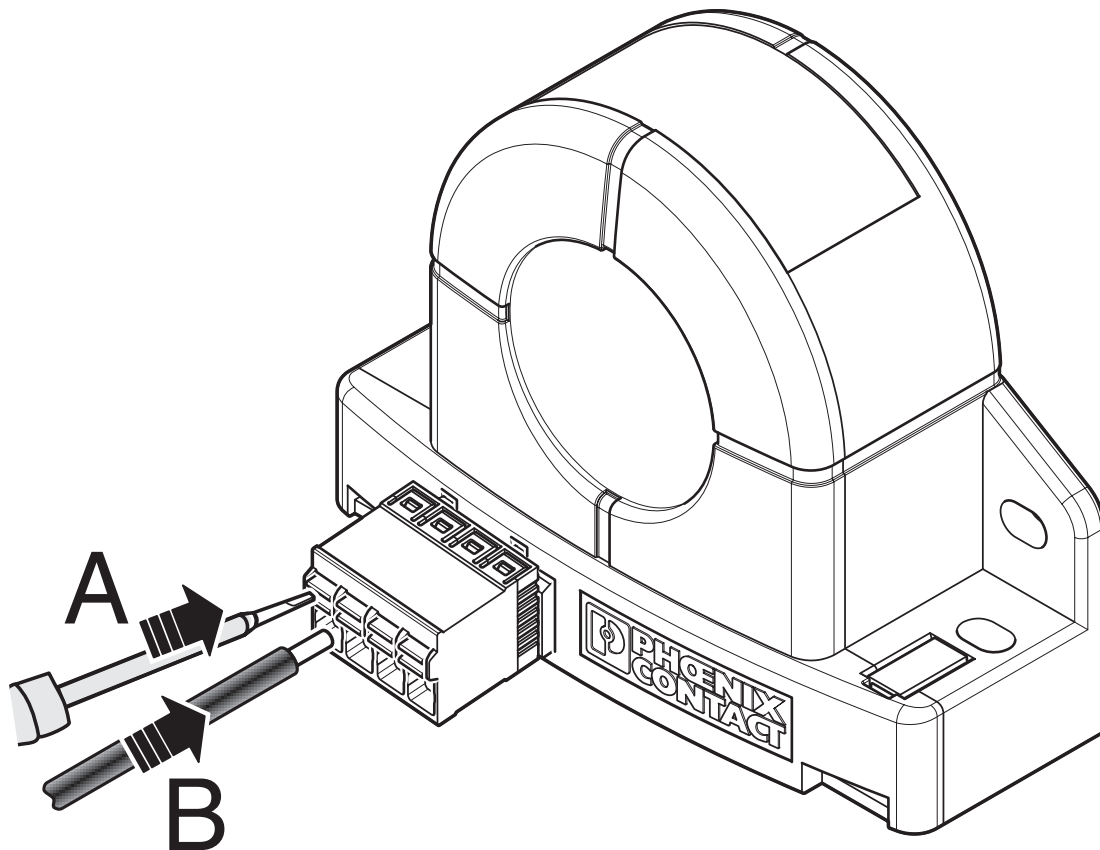


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Schematic diagram



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## Approvals



**EAC**

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



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## Classifications

### ECLASS

ECLASS-9.0	27210123
ECLASS-10.0.1	27210123
ECLASS-11.0	27210123

### ETIM

ETIM 8.0	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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PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)