

# MCR-S-20-100-UI-DCI - Current measuring transducer



2908798

<https://www.phoenixcontact.com/us/products/2908798>

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MCR current measuring transducer, programmable and configurable, for measuring direct, alternating and distorted currents, input current 0...20 to 0...100 A, unconfigured

## Commercial data

Item number	2908798
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA34
GTIN	4055626343662
Weight per piece (including packing)	183.9 g
Weight per piece (excluding packing)	156.1 g
Customs tariff number	85437090
Country of origin	DE

## Technical data

### Product properties

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

### Electrical properties

Total error	≤ 1.5 % (Temperature range)
Maximum power dissipation for nominal condition	2.2 W
Measuring category	III
Test voltage output/power supply	500 V AC (50 Hz, 60 s)
Test voltage input/output	4 kV AC (50 Hz, 60 s)
Test voltage input/power supply	4 kV AC (50 Hz, 60 s)
Protective circuit	Surge protection; 33 V suppressor diode
Step response (10-90%)	330 ms (AC) 40 ms (DC)
Temperature coefficient, typical	< 0.025 %/K
Maximum transmission error	< 0.5 % (of nominal range value under nominal conditions)
Rated insulation voltage	300 V AC (to earth)

### Supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	< 40 mA (without load)

### Input data

#### Measurement

Configurable/programmable	Yes, unconfigured
Input current range	0 A AC/DC ... 100 A AC/DC (Permitted continuous overload: 120%)
Setting range for min. input current	0 A AC/DC ... 19 A AC/DC
Setting range for max. input current	0 A AC/DC ... 100 A AC/DC
LSB: Current	1 µA (1 A)
	2 µA (2 A)
	5 µA (5 A)
	10 µA (10 A)
	50 µA (50 A)
	100 µA (100 A)
Overload capacity	Depending on through connected conductor
Surge strength	Depending on through connected conductor
Frequency measuring range	15 Hz ... 400 Hz
Curve type	AC, DC or distorted currents

Operate threshold	1 % (of measuring range nominal value 100 A)
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## Output data

Signal: Voltage/current

Configurable/programmable	Yes, unconfigured
Voltage output signal	0 V ... 10 V
	5 V ... 1 V
	5 V ... -5 V
	2 V ... 10 V
	-10 V ... 10 V
	0 V ... 5 V
	1 V ... 5 V
	-5 V ... 5 V
	10 V ... 0 V
	10 V ... 2 V
	10 V ... -10 V
	5 V ... 0 V
	Current output signal
4 mA ... 20 mA	
20 mA ... 0 mA	
20 mA ... 4 mA	
Load/output load voltage output	> 10 kΩ
Load/output load current output	< 500 Ω

## 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
Connection method	Through connection

## Signaling

Status display	LED (green)
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## Dimensions

Item dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Circular conductor

Diameter	10.5 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
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	< 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
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### UL, USA/Canada

Identification	Class I, Zone 2, AEx nA nC IIC T4, Ex nA nC IIC T4 Gc X
	Class I, Div. 2, Groups A, B, C and D or Non-Hazardous Locations Only

## EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2

### Noise emission

Standards/regulations	EN 61000-6-4
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## Standards and regulations

Standards/regulations	IEC 61010-2-030
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## Mounting

Mounting type	DIN rail mounting
Mounting position	any

# MCR-S-20-100-UI-DCI - Current measuring transducer

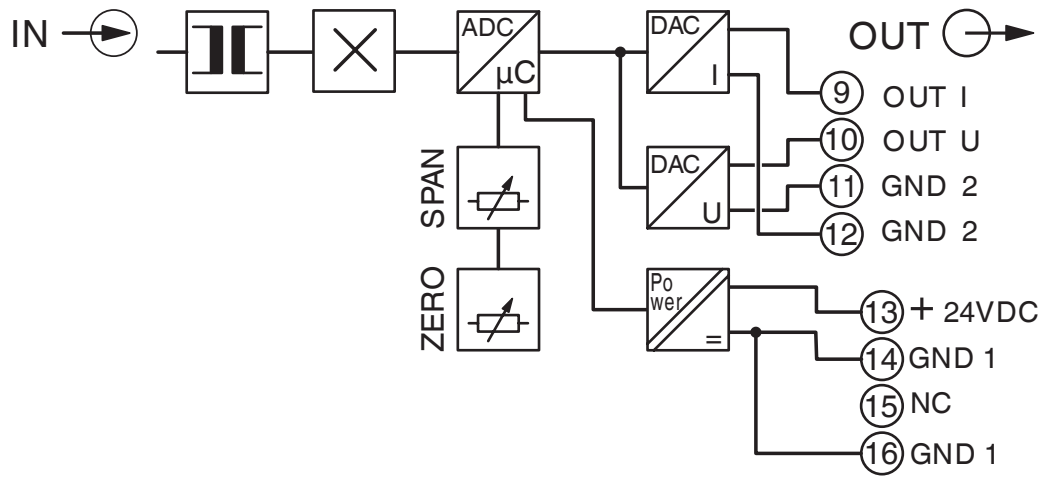


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## Drawings

Block diagram



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## Classifications

### ECLASS

ECLASS-13.0

27210123

### ETIM

ETIM 9.0

EC002475

### UNSPSC

UNSPSC 21.0

39121000

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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	1cac30aa-a4b8-4ce6-a999-ea54029d47ec

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