

2814359

https://www.phoenixcontact.com/us/products/2814359

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MCR passive current measuring transducer, for sinusoidal alternating currents 0..1 A AC/0..5 A AC, without switching output, output signal 0..10 V/0..20 mA

# Your advantages

- · Loop-powered
- 1 A and 5 A AC measuring ranges, reconnectable

#### Commercial data

Item number	2814359
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CK4A21
Catalog page	Page 236 (C-5-2019)
GTIN	4017918148447
Weight per piece (including packing)	251.934 g
Weight per piece (excluding packing)	210.4 g
Customs tariff number	85437090
Country of origin	DE



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#### Technical data

#### Notes

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EMC note	EMC: class A product, see manufacturer's declaration in the
	download area

#### Product properties

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

#### Electrical properties

Total error	≤ 1.175 % (Temperature range)
Test voltage	3.5 kV
Measuring category	III
Step response (10-90%)	< 200 ms
Maximum temperature coefficient	< 0.015 %/K
Maximum transmission error	< 0.5 % (of final value)
Rated insulation voltage	300 V AC (to earth)

#### Input data

### Signal

Configurable/programmable

0 A AC 1 A AC (Permitted continuous overload: 120%)
2 x I <sub>N</sub> (5 min. at 60°C ambient temperature)
50 A (1 s)
1.2 x I <sub>N</sub>
50 Hz

no

# Frequency measuring range 45 Hz ... 60 Hz Power dissipation 1.6 VA (at $I_A = 20 \text{ mA}$ )

#### Curve type Sine

#### Measurement

Input current range	0 A AC 5 A AC (Permitted continuous overload: 120%)
Impulse form	Sine
Overload capacity	2 x I <sub>N</sub> (5 min. at 60°C ambient temperature)
Surge strength	100 A (1 s)
Permissible output range	1.2 x I <sub>N</sub>
Nominal frequency f <sub>N</sub>	50 Hz



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Frequency measuring range	45 Hz 60 Hz
Power dissipation	2.2 VA (I = 20 mA)

### Output data

#### Signal: Voltage

Voltage output signal	0 V 10 V
Max. voltage output signal	20 V
Load/output load voltage output	> 100 kΩ
Ripple	< 50 mV <sub>PP</sub>

#### Signal: Current

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Current output signal	0 mA 20 mA
Max. current output signal	30 mA
Load/output load current output	< 750 Ω
	< 250 $\Omega$ (when current and voltage outputs are used simultaneously)
Ripple	< 50 mV <sub>PP</sub>
Residual ripple, in reference to the measured value	0.5 % (pp of measured value)

#### Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 14

#### **Dimensions**

#### Item dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

### 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)	-25 °C 60 °C
Ambient temperature (storage/transport)	-25 °C 80 °C (non-condensing)
Altitude	< 2000 m
Permissible humidity (operation)	10 % 95 % (non-condensing)



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### Approvals

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Certificate	E-compliant
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#### EMC data

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

### Standards and regulations

Standards/regulations IEC 61010-2-030
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# Mounting

Mounting type	DIN rail mounting
Mounting position	< 50 °C: any; > 50 °C: vertical (installation on horizontal DIN rail)



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# Classifications

UNSPSC 21.0

#### **ECLASS**

ECLASS-11.0	27210123
ECLASS-12.0	27210123
ECLASS-13.0	27210123
ETIM	
ETIM 9.0	EC002475
UNSPSC	

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# Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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