MCR-S-10-50-UI-DCI - Current transducers

2814647

https://www.phoenixcontact.com/in/products/2814647

MCR current measuring transducer, programmable and configurable, for measuring direct, alternating and distorted currents, input current 0...10 to 0...50 A, configured

Your advantages

- Device can be set via DIP switches or MCR/PI-CONF-WIN configuration software
- 3-way isolation
- True r.m.s. value measurement

Commercial data

Item number	2814647
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CK4
Product key	CK4A34
Catalog page	Page 231 (C-5-2019)
Weight per piece (including packing)	172.9 g
Weight per piece (excluding packing)	170 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Notes

Utilization restriction

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	≤ 1.5 % (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, preconfigured
Input current range	0 A AC/DC ... 55 A AC/DC (Permitted continuous overload: 120%)
Current measuring range	0 A AC/DC ... 50 A AC/DC
Setting range for min. input current	0 A AC/DC ... 9.5 A AC/DC
Setting range for max. input current	0 A AC/DC ... 55 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	0.8 % (of measuring range nominal value 50 A)

Output data

Signal: Voltage/current

Configurable/programmable	Yes, preconfigured
Voltage output signal	0 V ... 5 V
	1 V ... 5 V
	0 V ... 10 V
	2 V ... 10 V
	-5 V ... 5 V
	-10 V ... 10 V
	10 V ... 0 V
	10 V ... 2 V
	10 V ... -10 V
	5 V ... 0 V
	5 V ... 1 V
	5 V ... -5 V
Current output signal	0 mA ... 20 mA
	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 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Connection method	Through connection

Signaling

Status display	Green LED

Dimensions

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Item dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Circular conductor

Diameter	10.5 mm

Material specifications

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

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

Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Standards and regulations

Standards/regulations	IEC 61010-2-030

Mounting

Mounting type	DIN rail mounting
Mounting position	any

MCR-S-10-50-UI-DCI - Current transducers
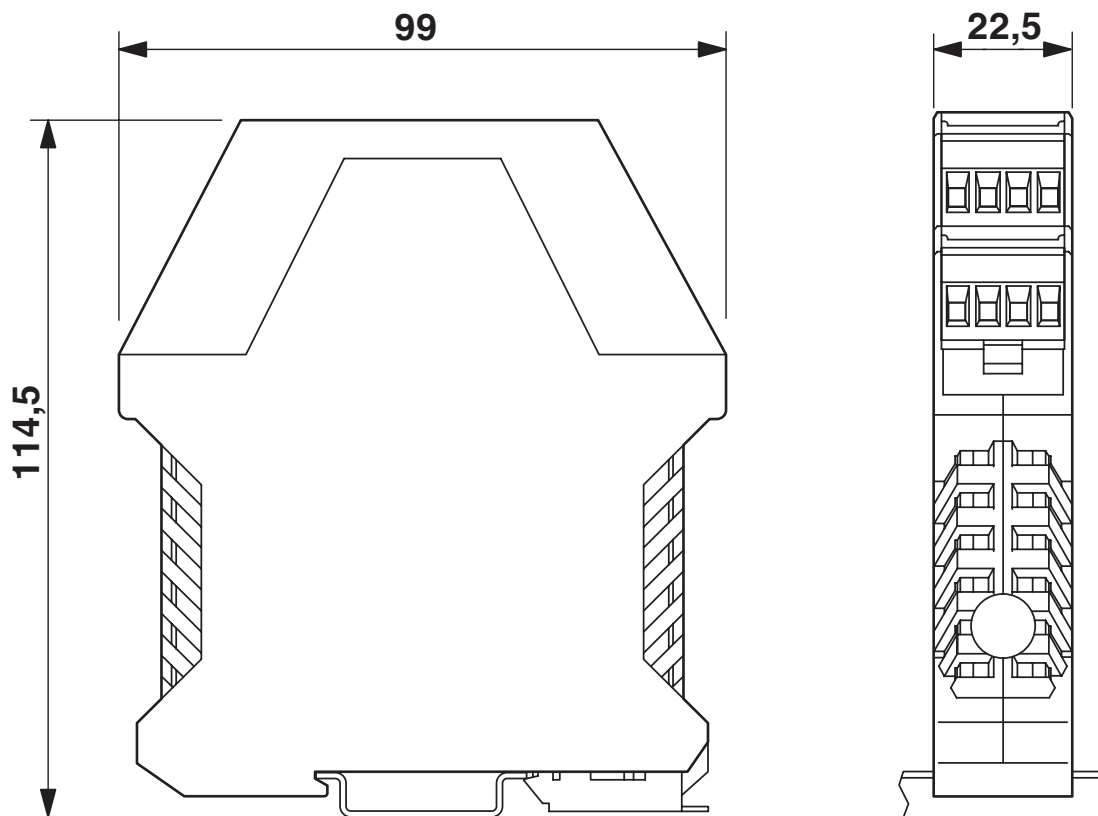
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Drawings

Dimensional drawing

Circuit diagram
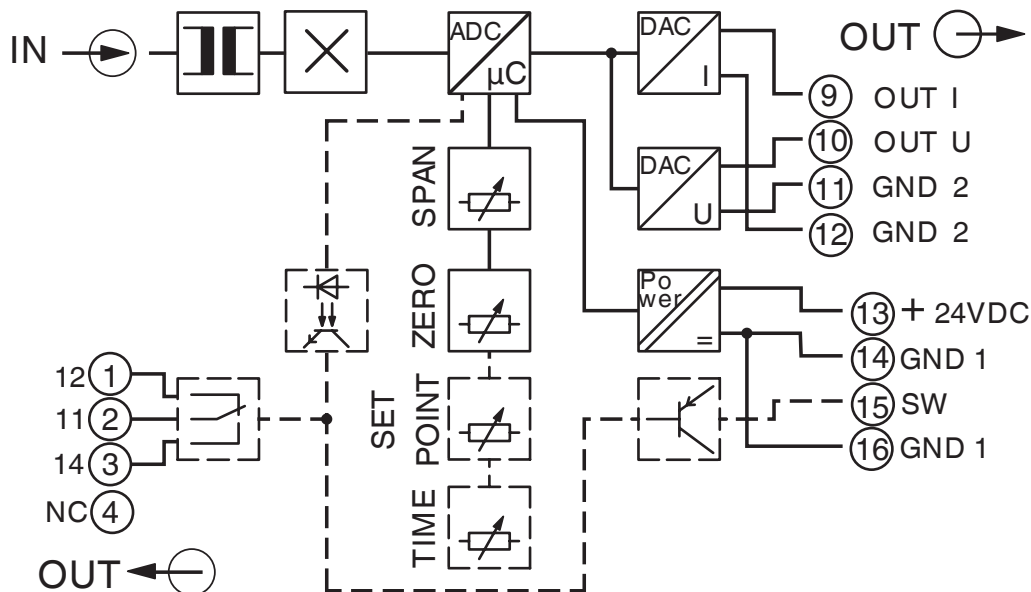
Approvals

💡 To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/2814647

cUL Recognized
Approval ID: FILE E 238705

UL Recognized
Approval ID: FILE E 238705

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

cUL Listed
Approval ID: FILE E 199827

UL Listed
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cULus Recognized

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002475

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

REACh SVHC	Lead 7439-92-1
	Hexahydromethylphthalic anhydride

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Accessories

MCR-TTL-RS232-E - Adapter cable

2814388

https://www.phoenixcontact.com/in/products/2814388

Software adapter cable (Stereo jack connector/D-SUB 25-pos.), 1.2 m length, for programming MCR-T-..., MCR-S-... and MCR-f-... modules

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CM-KBL-RS232/USB - Cable

2881078

https://www.phoenixcontact.com/in/products/2881078

Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.