

Current transducers - MCR-S-1-5-UI-SW-DCI-NC - 2814731

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MCR current transducer, programmable and configurable, for measuring direct, alternating and distorted currents, with relay and transistor output, input current 0 ... 0.2 A to 0 ... 11 A, unconfigured

The illustration shows version MCR-S-1-5-UI-DCI

Why buy this product

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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 169282
Weight per Piece (excluding packing)	149.08 g
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Ambient conditions

Degree of protection	IP20
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Input data

Input	Current measuring input
Number of inputs	3
Configurable/programmable	Yes, unconfigured
Input current range	0 A ... 11 A (AC/DC)
Operate threshold	2 % (of measuring range nominal value 1/5/10 A)
Setting range for min. input current	0 A ... 0.2 A
Setting range for max. input current	0 A ... 11 A
Impulse form	AC, DC or distorted currents
Overload capacity	2 x I _N (continuous)
Surge strength	20 x I _N (1 s)
Frequency measuring range	15 Hz ... 400 Hz
Connection method	Screw connection

Output data

Output name	Voltage output / current output
Configurable/programmable	Yes, unconfigured
Voltage output signal	0 V ... 10 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
	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

Switching output

Output name	Relay output
Contact type	1 PDT
Contact material	AgSnO, hard gold-plated

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Switching output

Maximum switching voltage	30 V AC
	36 V DC
	250 V AC (when the gold layer is destroyed)
Limiting continuous current	50 mA
	2 A (when the gold layer is destroyed)
Output name	Transistor output, pnp
Output voltage range	19 V ... 29 V (supply voltage - 1 V)
Continuous load current	80 mA (Not short-circuit proof)
Setting range of the threshold value	1 % ... 110 %
Setting range of the response delay	0.1 s ... 20 s
Status display	Yellow LED

Power supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	< 50 mA (without load)

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Stripping length	8 mm
Screw thread	M3

General

Maximum transmission error	< 0.5 % (of nominal range value under nominal conditions)
Temperature coefficient, typical	< 0.025 %/K
Step response (10-90%)	330 ms (with AC)
	40 ms (with DC)
Status display	Green LED
Overvoltage category	III
Pollution degree	2
Rated insulation voltage	300 V AC (to earth)
Test voltage input/output	4 kV (50 Hz, 1 min.)
Test voltage input/power supply	4 kV (50 Hz, 1 min.)
Test voltage output/power supply	500 V (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2

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General

Color	green
Housing material	Polyamide PA non-reinforced
Mounting position	any
Conformance	CE-compliant
UL, USA / Canada	Class I, Zone 2, AEx nC IIC T6, Ex nC IIC T6

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Connection in acc. with standard	CUL
Low Voltage Directive	Conformance with Low Voltage Directive 2006/95/EC
Conformance	CE-compliant
UL, USA / Canada	Class I, Zone 2, AEx nC IIC T6, Ex nC IIC T6

Classifications

eCl@ss

eCl@ss 4.0	27200303
eCl@ss 4.1	27200303
eCl@ss 5.0	27200303
eCl@ss 5.1	27200303
eCl@ss 6.0	27200303
eCl@ss 7.0	27142316
eCl@ss 8.0	27210123

ETIM

ETIM 2.0	EC001440
ETIM 3.0	EC001440
ETIM 4.0	EC001440
ETIM 5.0	EC002475

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

Approvals

Approvals

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Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized

cUL Recognized

EAC

cULus Recognized

Accessories

Accessories

Arrester test system

Conductor - CM-KBL-RS232/USB - 2881078



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

Configuration and diagnostics

Current transducers - MCR-S-1-5-UI-SW-DCI-NC - 2814731

Accessories

Configuration software - MCR/PI-CONF-WIN - 2814799

PI/MCR configuration software for programming PI-EX-RTD..., PI-EX-TC..., MCR-T..., MCR-PSP..., MCR-f..., and MCR-S... modules. This software is available to download free of charge at - phoenixcontact.com.



Programming adapter

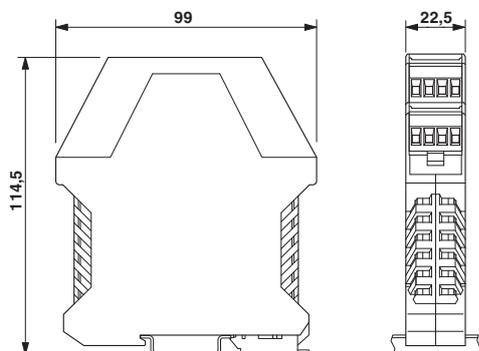
Adapter cable - MCR-TTL-RS232-E - 2814388



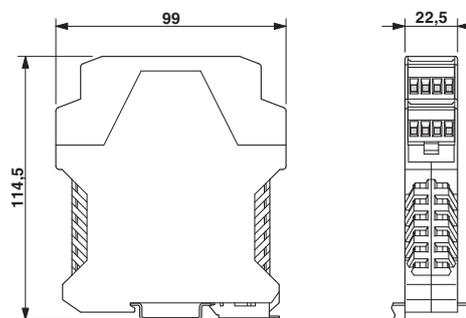
Software adapter cable (Stereo jack connector/D-SUB 25-pos.), 1.2 m length, for programming MCR-T..., MCR-S... and MCR-f... modules

Drawings

Dimensional drawing



Dimensional drawing



Circuit diagram

