

Current transducers - MCR-S10-50-UI-SW-DCI-NC - 2814744

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MCR current measuring transducer, programmable and configurable, for measuring direct, alternating and distorted currents, with relay and transistor output, input current 0...10 to 0...50 A, unconfigured

The illustration shows version MCR-S-10-50-UI-DCI

Product Features

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



Key commercial data

package_quantity	1
GTIN	4017918169299

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
Degree of protection	IP20

Input data

Input	Current measuring input
Configurable/programmable	Yes, unconfigured
Input current range	0 A ... 55 A (AC/DC)
Operate threshold	0.8 % (of measuring range nominal value 50 A)
Setting range for min. input current	0 A ... 9.5 A

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Input data

Setting range for max. input current	0 A ... 55 A
Impulse form	AC, DC or distorted currents
Overload capacity	Depending on through connected conductor
Surge strength	Depending on through connected conductor
Frequency measuring range	15 Hz ... 400 Hz
Connection method	Through connection, diameter 10.5 mm

Output data

Output name	Voltage output / current output
Configurable/programmable	Yes, unconfigured
Voltage output signal	0 V ... 10 V
Voltage output signal	2 V ... 10 V
Voltage output signal	-10 V ... 10 V
Voltage output signal	0 V ... 5 V
Voltage output signal	1 V ... 5 V
Voltage output signal	-5 V ... 5 V
Voltage output signal	10 V ... 0 V
Voltage output signal	10 V ... 2 V
Voltage output signal	10 V ... -10 V
Voltage output signal	5 V ... 0 V
Voltage output signal	5 V ... 1 V
Voltage output signal	5 V ... -5 V
Current output signal	0 mA ... 20 mA
Current output signal	4 mA ... 20 mA
Current output signal	20 mA ... 0 mA
Current output signal	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
Maximum switching voltage	30 V AC
Maximum switching voltage	36 V DC
Maximum switching voltage	250 V AC (when the gold layer is destroyed)
Limiting continuous current	50 mA
Limiting continuous current	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 %

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Switching output

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/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded 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)
Step response (10-90%)	40 ms (with DC)
Status display	Green LED
Surge voltage 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
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

classifications

eCl@ss

eCl@ss 4.0	27200303
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classifications

eCl@ss

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	27142316

ETIM

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

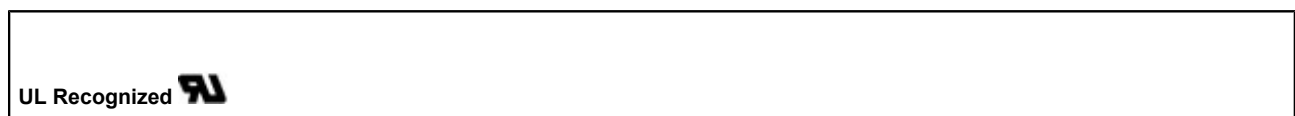
UNSPSC

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

approvals

UL Listed / cUL Listed / cULus Listed / UL Recognized / cUL Recognized / GOST / cULus Recognized /

Approval details



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approvals

cUL Recognized 

GOST 

cULus Recognized 

accessories

Configuration and diagnostics

MCR/PI-CONF-WIN - 2814799



Programming adapter

MCR-TTL-RS232-E - 2814388



Arrester test system

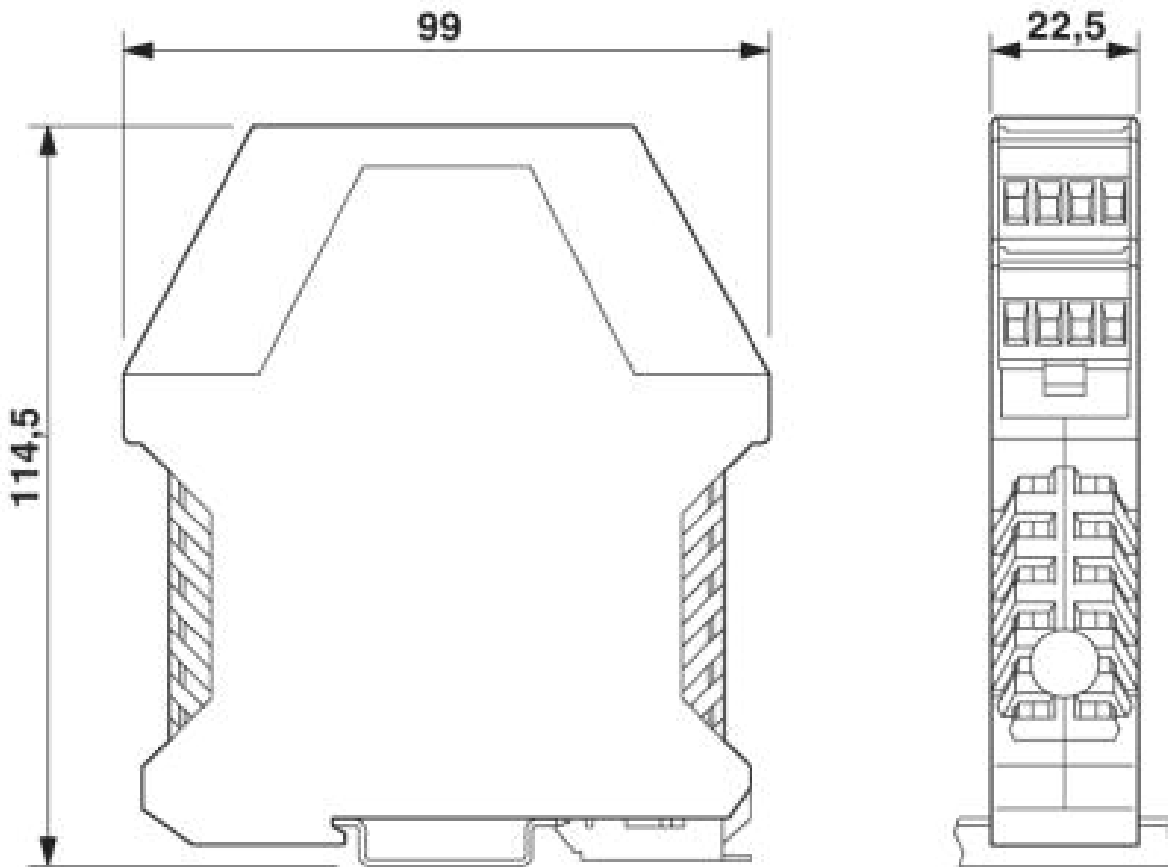
CM-KBL-RS232/USB - 2881078



Drawings

Current transducers - MCR-S10-50-UI-SW-DCI-NC - 2814744

Dimensioned drawing



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Circuit diagram

