

# 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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## Technical data

### Input data

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

### Output data

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

### Switching output

<b>Output name</b>	Relay output
<b>Contact type</b>	1 PDT
<b>Contact material</b>	AgSnO, hard gold-plated
<b>Maximum switching voltage</b>	30 V AC
<b>Maximum switching voltage</b>	36 V DC
<b>Maximum switching voltage</b>	250 V AC (when the gold layer is destroyed)
<b>Limiting continuous current</b>	50 mA
<b>Limiting continuous current</b>	2 A (when the gold layer is destroyed)
<b>Output name</b>	Transistor output, pnp
<b>Output voltage range</b>	19 V ... 29 V (supply voltage - 1 V)
<b>Continuous load current</b>	80 mA (Not short-circuit proof)
<b>Setting range of the threshold value</b>	1 % ... 110 %

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## Technical data

### 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 <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
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

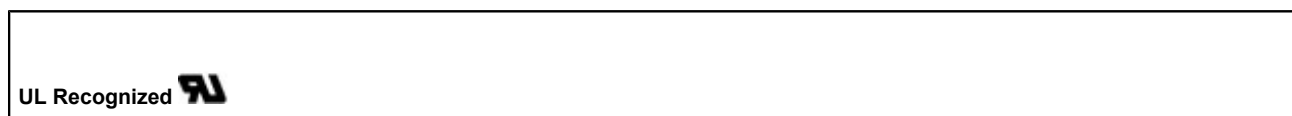
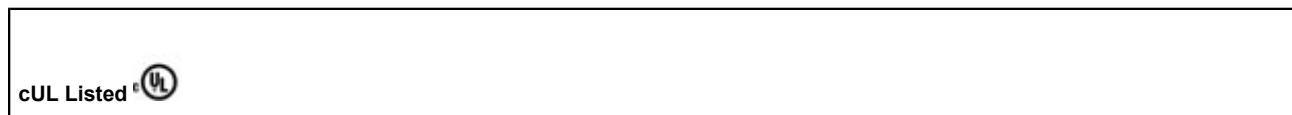
### UNSPSC

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



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

approvals

cUL Recognized 

GOST 

cULus Recognized 

accessories

### Configuration and diagnostics

MCR/PI-CONF-WIN - 2814799



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### Programming adapter

MCR-TTL-RS232-E - 2814388



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### Arrester test system

CM-KBL-RS232/USB - 2881078

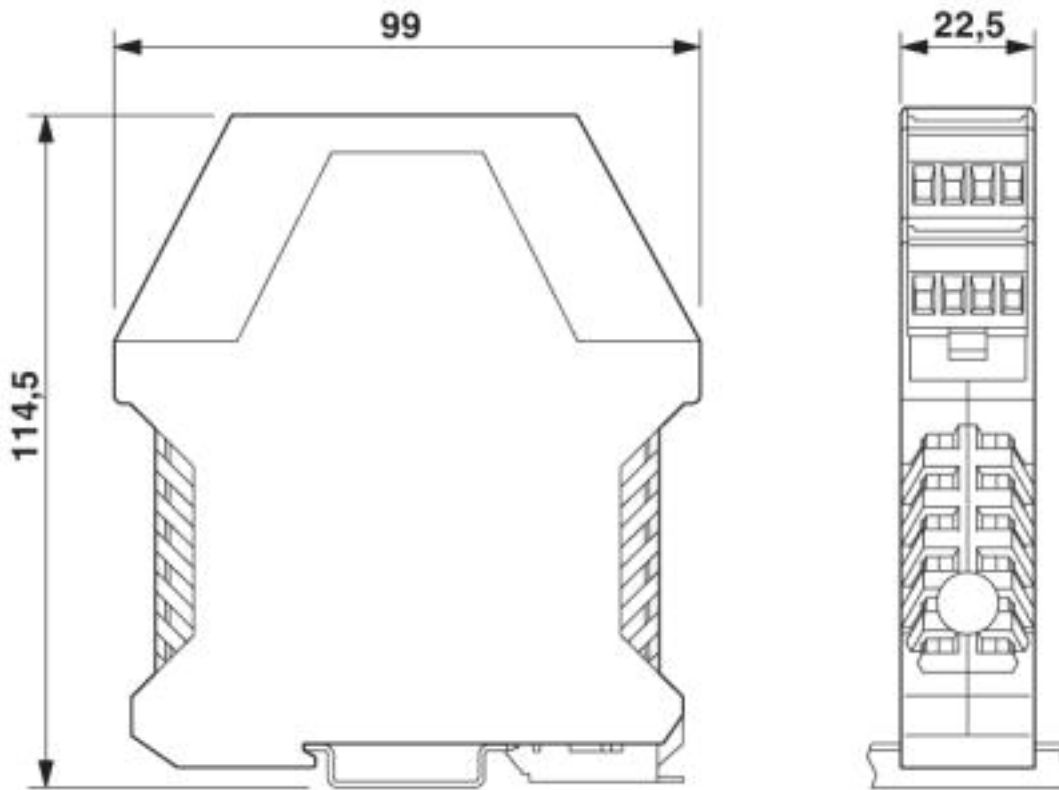


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### Drawings

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Dimensioned drawing



Circuit diagram

