

## Current transducers - MCR-S10-50-UI-DCI-NC - 2814728

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

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

### Why buy this product

- 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

Packing unit	1 STK
GTIN	
GTIN	4017918169305
Weight per Piece (excluding packing)	119.480 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
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### Ambient conditions

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
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
	5 V ... 1 V
	5 V ... -5 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
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	No switching output
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### Power supply

Supply voltage range	20 V DC ... 30 V DC
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### Power supply

Max. current consumption	< 40 mA (without load)
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### 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 AWG min.	24
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
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
Degree of pollution	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 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

### 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

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## Technical data

### Standards and Regulations

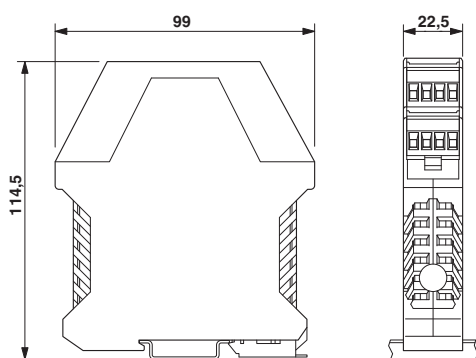
UL, USA/Canada	Class I, Zone 2, AEx nA nC IIC T4, Ex nA nC IIC T4 Gc X
	Class I, Div. 2, Groups A, B, C and D or Non-Hazardous Locations Only

### Environmental Product Compliance

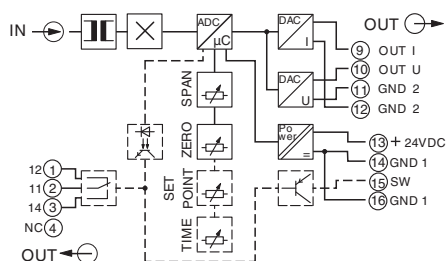
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Dimensional drawing



Circuit diagram



## Classifications

### eCl@ss

eCl@ss 5.0	27210190
eCl@ss 5.1	27210190
eCl@ss 6.0	27210190
eCl@ss 7.0	27210123
eCl@ss 8.0	27210123
eCl@ss 9.0	27210123

### ETIM

ETIM 3.0	EC002475
ETIM 4.0	EC002475
ETIM 5.0	EC002475
ETIM 6.0	EC002475

### UNSPSC

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

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## Classifications

### UNSPSC

UNSPSC 13.2	39121032
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## Approvals

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UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

## Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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EAC		EAC-Zulassung
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>
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## Accessories

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#### Arrester test system

Cable - CM-KBL-RS232/USB - 2881078



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

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### Accessories

#### 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