

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

Packing unit	1 pc
Weight per Piece (excluding packing)	193.7 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
	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 ... 0.02 A
	4 mA ... 0.02 A
	20 mA ... 0 A
	20 mA ... 0.004 A
Load/output load voltage output	> 10 kΩ
Load/output load current output	< 500 Ω

Switching output

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Switching output

Output name	Relay output
Contact type	1 PDT
Contact material	AgSnO, hard gold-plated
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
Degree of pollution	2
Rated insulation voltage	300 V AC (to earth)

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General

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

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 8.0	27210123
eCl@ss 9.0	27210123

ETIM

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

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Classifications

UNSPSC

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

Approvals

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 

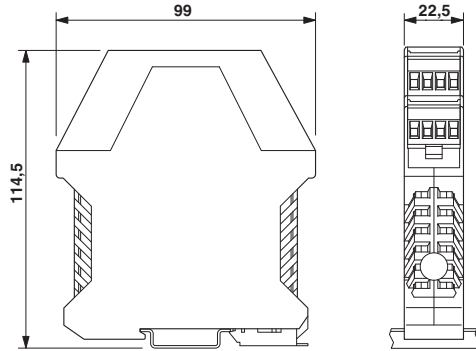
EAC

cULus Recognized 

Drawings

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Dimensional drawing



Circuit diagram

