

ACT20P-CMT-10-AO-RC-P

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

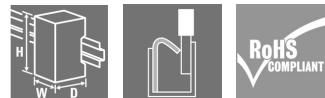
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Similar to illustration



ACT20P: The flexible solution

- Precise and highly functional signal converters
- Release levers simplify handling

General ordering data

Version	Current-measuring transducer, Limit value monitoring, Input : 0...5/10 A, Analogue output, Relay output, Current-carrying cable in feed-through hole
Order No.	1510330000
Type	ACT20P-CMT-10-AO-RC-P
GTIN (EAN)	4050118319378
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	114 mm	Depth (inches)	4.488 inch
Height	127.1 mm	Height (inches)	5.004 inch
Width	22.8 mm	Width (inches)	0.898 inch
Net weight	158 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...60 °C
Operating temperature, min.	-25 °C	Operating temperature, max.	60 °C
Humidity	5...95 %, no condensation		

Input

Input frequency		Input measurement range	configurable, 0...5/10 A AC (RMS) or DC, max. peak current $10 \times I_{Input}$ (1 s), max. peak current $2 \times I_{Input}$ (1 s) @ 5/10 A DC, For DC current measurement (AA): Current direction display at the output (-/+ analog value)
	AC: 15...700 Hz (true root mean square)		
Input signal	Current-carrying cable in feed-through hole	Number of inputs	1

Output

Load impedance current	$\leq 600 \Omega$	Type	active, connected control must be passive
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Output (digital)

Alarm function	Surge current, Under-current, Alarm delay: 0...10 s, Hysteresis 5% / 10%	Max. switching frequency	20 Hz
Max. switching voltage, AC	250 V	Max. switching voltage, DC	24 V
Number of digital outputs	1	Rated switching current	6 A
Type	Relay, 1 CO contact, normal / inverse adjustment		

Output (analogue)

Load resistance current	$\leq 600 \Omega$	Load resistance voltage	$\geq 10 \text{ k}\Omega$
Number of analogue outputs	1	Output current	Adjustable, 0...20 mA, 4...20 mA, -20...+20 mA
Output voltage	Adjustable, 0...10 V, 2...10 V, 0...5 V, 1...5 V, -5...+5 V, -10...+10 V	Transmit function	direct or inverted
Type (analogue output)	Voltage and current output (configurable)		

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Technical data**General data**

Accuracy	< 0.75 % FSR	Configuration	www.weidmuller.com DIP switch and potentiometer
Galvanic isolation	4-way isolator, between input/output/supply/relay	Power consumption, max.	2.2 W
Rail	TS 35	Step response time	≤ 300 ms (RMS), ≤ 60 ms (AA)
Temperature coefficient	≤ ±100 ppm/K @ -25...+55 °C, ≤ ±200 ppm/K @ +55...+70 °C	Voltage supply	16,8 V...31,2 V

Insulation coordination

EMC standards	IEC 61326-1, IEC 61010-2-201	Galvanic isolation	4-way isolator, between input/output/supply/relay
Impulse withstand voltage	6.4 kV (1.2/50 µs)	Insulation voltage	4 kV _{eff} / 1 min.
Pollution severity	2	Rated voltage	300 V AC _{rms}
Surge voltage category	III	Test voltage	4 kV

Connection data

Type of connection	PUSH IN	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 14
Wire cross-section, solid, min.	0.2 mm ²	Wire cross-section, solid, max.	2.5 mm ²
Wire connection cross section, finely stranded, min.	0.2 mm ²	Wire connection cross section, finely stranded, max.	2.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.2 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²

Classifications

ETIM 6.0	EC002475	ETIM 7.0	EC002475
ETIM 8.0	EC002475	ECLASS 9.0	27-21-01-23
ECLASS 9.1	27-21-01-23	ECLASS 10.0	27-21-01-23
ECLASS 11.0	27-21-01-23	ECLASS 12.0	27-21-01-23

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

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Technical datainfo@weidmueller.comwww.weidmueller.com**Important note**

Product information

The ACT20P-CMT-XX-(AO)-RC-P series of devices measure and monitor AC and DC currents of up to 60 A. The real effective value method used allows for precise measurement, even for distorted current curve shapes. The devices feature integrated limit value monitoring with an adjustable switching threshold, delay and hysteresis, as well as a relay output..

Features

- Real effective value measurement (True RMS) or arithmetic averaging (AA) measurement and contactless through-hole technology
- Limit value monitoring for overcurrent or undercurrent
- Relay output by means of the open-circuit / closed-circuit principle
- Adjustable trigger delay for filtering current peaks
- Operational status and error display on a front panel LED and output signalling according to NE43, NE44, NE107
- Galvanic four-way insulation for secure isolation according to IEC/EN 61010-2-201

Approvals

Approvals



Approvals CULUS;

ROHS Conform

UL File Number Search UL Website

Certificate no. (cULus) E141197

Downloads

Approval/Certificate/Document of Conformity	Certification DNV GL Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	EPLAN
Software	Runtime Software – DIP switch configuration tool
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format

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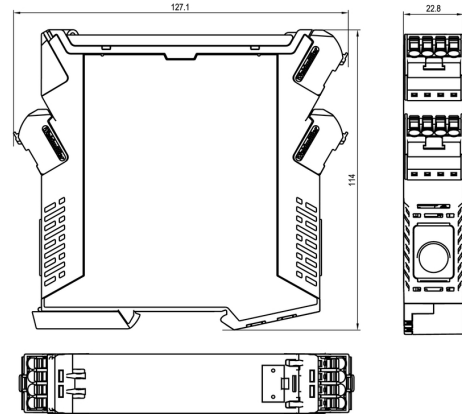
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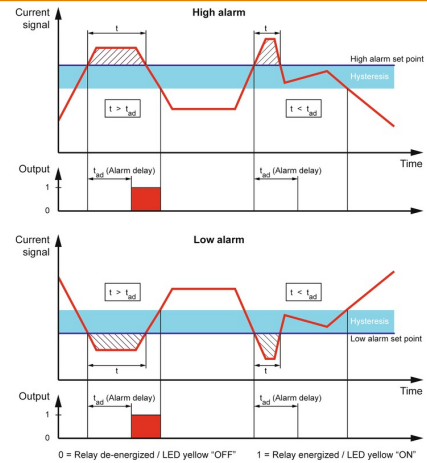
Drawings

Dimensioned drawing info@weidmueller.com

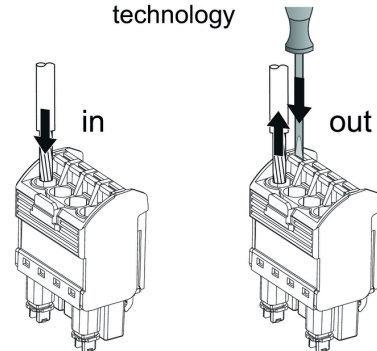


Configuration

DIP switch S1		DIP switch S2	
Current input range	1 2 3 4 5 6 7 8	Output range	1 2 3 4 5 6 7 8
0...5 A	<input type="checkbox"/>	0...10 V	<input type="checkbox"/>
0...10 A	<input checked="" type="checkbox"/>	2...10 V	<input type="checkbox"/>
Measuring method	1 2 3 4 5 6 7 8	0.5 V	<input type="checkbox"/>
True RMS	<input type="checkbox"/>	1...5 V	<input type="checkbox"/>
Arithmetic average	<input checked="" type="checkbox"/>	-5...+5 V	<input type="checkbox"/>
Alarm delay time	1 2 3 4 5 6 7 8	-10...+10 V	<input type="checkbox"/>
0 s	<input type="checkbox"/>	0...20 mA	<input type="checkbox"/>
2 s	<input type="checkbox"/>	-20...+20 mA	<input type="checkbox"/>
5 s	<input type="checkbox"/>	Alarm relay action	1 2 3 4 5 6 7 8
10 s	<input checked="" type="checkbox"/>	Energized	<input type="checkbox"/>
Measuring range monitoring	1 2 3 4 5 6 7 8	De-energized	<input checked="" type="checkbox"/>
Yes	<input type="checkbox"/>	Alarm hysteresis	1 2 3 4 5 6 7 8
No	<input checked="" type="checkbox"/>	5 %	<input type="checkbox"/>
Output error action	1 2 3 4 5 6 7 8	10 %	<input checked="" type="checkbox"/>
Upscale	<input type="checkbox"/>	Alarm type	1 2 3 4 5 6 7 8
Downscale	<input checked="" type="checkbox"/>	High alarm	<input type="checkbox"/>
Transfer function	1 2 3 4 5 6 7 8	Low alarm	<input checked="" type="checkbox"/>
Normal	<input type="checkbox"/>		
Inverse	<input checked="" type="checkbox"/>		



PUSH IN technology



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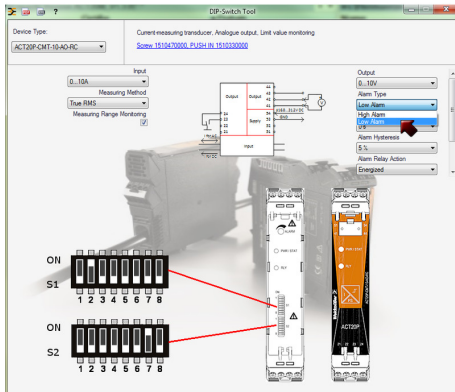
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Drawings



example for DIP switch setting (with ACT20 tool)

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