

**ACT20P-CMT-10-AO-RC-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****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.	<a href="#">1510470000</a>
Type	ACT20P-CMT-10-AO-RC-S
GTIN (EAN)	4050118319583
Qty.	1 pc(s).

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## Technical data

### Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.472 inch
Height	119.2 mm	Height (inches)	4.693 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	211 g		

### Temperatures

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

### Probability of failure

MTTF	130 a
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### Input

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

### 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 limit setting: 2 - 105 %, Hysteresis 5% / 10%, Alarm delay: 0...10 s	Continuous current	$2 \times I_{\text{Input}}$
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	Switching thresholds	2...105% of measurement range
Type	Relay, 1 CO contact, normal / inverse adjustment		

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### 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)	'active', 'connected control must be passive'		

### General data

Accuracy	$<0.75 \% \text{ FSR}$	Configuration	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	$\leq 300 \text{ ms (RMS)}, \leq 60 \text{ ms (AA)}$
Temperature coefficient	$\leq \pm 100 \text{ ppm/K @ } -25...+55^\circ\text{C}, \leq \pm 200 \text{ ppm/K @ } +55...+70^\circ\text{C}$	Voltage supply	16.8 V...31.2 V

### Insulation coordination

EMC standards	EN 61326-1	Galvanic isolation	4-way isolator, between input / output / supply / relay
Impulse withstand voltage	6.4 kV (1.2/50 $\mu\text{s}$ )	Insulation voltage	4 kV <sub>eff</sub> / 1 min.
Pollution severity	2	Rated voltage	300 V AC <sub>rms</sub>
Surge voltage category	III	Test voltage	4 kV

### Connection data

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	1.5 mm <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

### Classifications

ETIM 6.0	EC002475	ETIM 7.0	EC002475
ETIM 8.0	EC002475	ETIM 9.0	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	ECLASS 13.0	27-21-01-23

### Environmental Product Compliance

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

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## Product information

The ACT20P-CMT-XX-(AO)-RC-S 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



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Certification DNV GL</a> <a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Software	<a href="#">DIP switch configuration tool</a>
User Documentation	<a href="#">Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

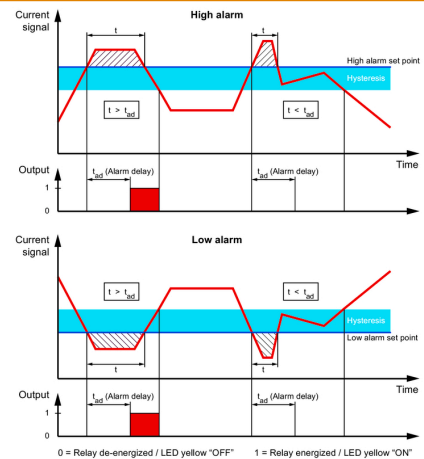
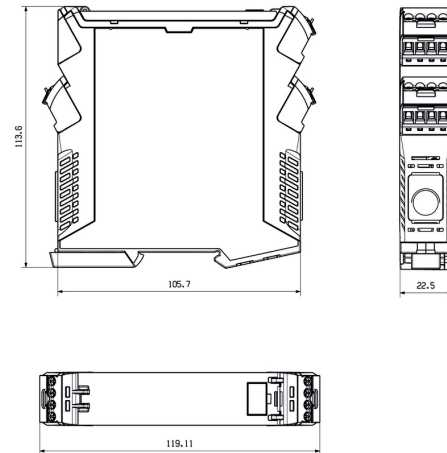
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## Drawings

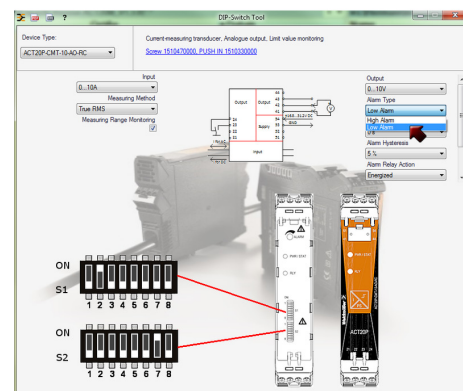
### Dimensioned drawing



### Configuration

DIP switch S1								
Current input range	1	2	3	4	5	6	7	8
0...5 A								
0...10 A								
Measuring method	1	2	3	4	5	6	7	8
True RMS								
Arithmetic average								
Alarm delay time	1	2	3	4	5	6	7	8
0 s								
2 s								
5 s								
10 s								
Measuring range monitoring	1	2	3	4	5	6	7	8
Yes								
No								
Output error action	1	2	3	4	5	6	7	8
Upscale								
Downscale								
Transfer function	1	2	3	4	5	6	7	8
Normal								
Inverse								

DIP switch S2								
Output range	1	2	3	4	5	6	7	8
0...10 V								
2...10 V								
0...5 V								
1...5 V								
-5...+5 V								
-10...+10 V								
0...20 mA								
4...20 mA								
-20...+20 mA								
Alarm relay action	1	2	3	4	5	6	7	8
Energized								
De-energized								
Alarm hysteresis	1	2	3	4	5	6	7	8
5 %								
10 %								
Alarm type	1	2	3	4	5	6	7	8
High alarm								
Low alarm								



example for DIP switch setting (with ACT20 tool)

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ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

**For custom printing:** Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

**General ordering data**

Type	ESG 8/13.5/43.3 SAI AU	Version
Order No.	<a href="#">1912130000</a>	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent
GTIN (EAN)	4032248541164	
Qty.	5 pc(s).	

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**General ordering data**

Type	ESG 6.6/20 BHZ 5.00/04	Version
Order No.	<a href="#">1082540000</a>	ESG, Device markers x 20 mm, PA 66, Colour: white
GTIN (EAN)	4032248845439	
Qty.	200 pc(s).	

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**Drawings**

