

ACT20P ACT20P-CMT-10-AO-RC-S

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Product image



ACT20P: The flexible solution

- Precise and highly functional signal converters
- Simple configuration via display (Pro DCDC II), FDT/DTM software or DIP switch
- Release levers simplify handling
- More space in the control cabinet, from 12.5 mm wide for two channels

General ordering data

Type	ACT20P-CMT-10-AO-RC-S
Order No.	1510470000
Version	Current-measuring transducer, Limit value monitoring, Signal converter/isolator, Current monitoring, Analogue output, Screw connection, Input measurement range: configurable, 0...5/10 A AC (RMS) or DC
GTIN (EAN)	4050118319583
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Width	22.5 mm	Width (inches)	0.886 inch
Height	117.2 mm	Height (inches)	4.614 inch
Depth	113.6 mm	Depth (inches)	4.472 inch
Net weight	158 g		

Temperatures

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

Probability of failure

MTTF	130 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

Number of inputs	1	Input signal	Current-carrying cable in feed-through hole, Diameter 10.5 mm
Input measurement range	configurable, 0...5/10 A AC (RMS) or DC	Input frequency	AC: 15...700 Hz (true root mean square), AC: 50 Hz (arithmetic average)

General data

Accuracy	< 0.75 % 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	≤ 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

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Technical data
Output (analogue)

Load resistance current	≤ 600 Ω	Load resistance voltage	≥ 10 kΩ
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
Type (analogue output)	Voltage and current output (configurable)		

Output (digital)

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

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 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 12

Classifications

ETIM 5.0	EC002048	ETIM 6.0	EC002475
eClass 6.2	27-21-09-02	eClass 7.1	27-21-09-02
eClass 8.1	27-21-09-02	eClass 9.0	27-21-01-23
eClass 9.1	27-21-01-23		

Product information

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

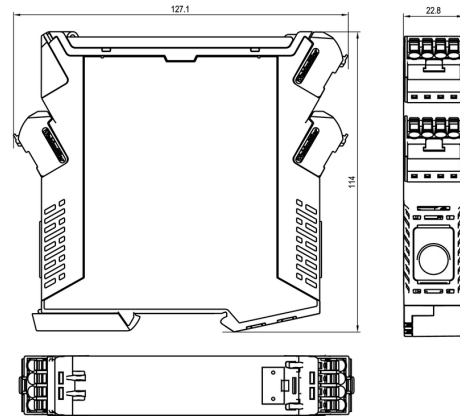
Data sheet**ACT20P**
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Approval/Certificate/Document of Conformity	DNV GL certification Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
Software	DIP switch configuration tool
User Documentation	Instruction sheet

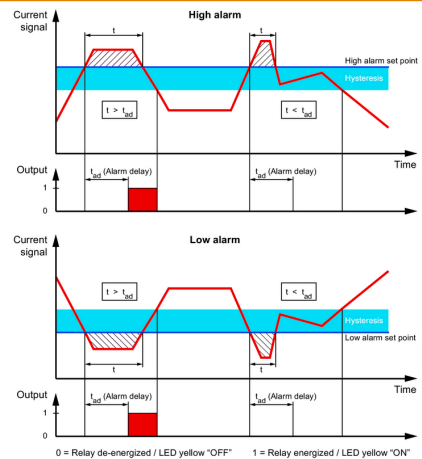
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Dimensioned drawing



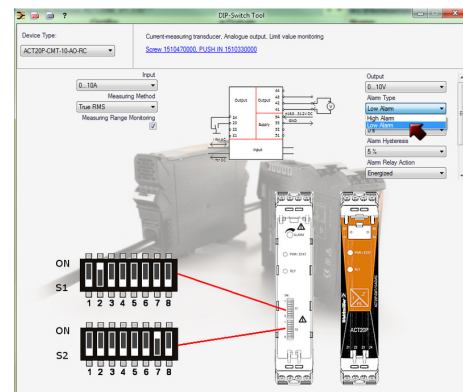
dimensions



0 = Relay de-energized / LED yellow "OFF" 1 = Relay energized / LED yellow "ON"

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



example for DIP switch setting (with ACT20 tool)

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Drawings

