

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

Klingenbergstraße 26

D-32758 Detmold

Germany

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...1/5/10 A, Analogue output, Relay output
Order No.	2044850000
Type	ACT20P-CML-10-AO-RC-S
GTIN (EAN)	4050118409680
Qty.	1 pc(s).

Creation date March 26, 2021 9:52:08 PM CET

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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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
Net weight	141 g	Width	17.5 mm
Width (inches)	0.689 inch		

Temperatures

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

Probability of failure

MTTF	130 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

Input frequency		Input measurement range	configurable, 0...1/5/10 A AC (RMS) or DC, max. peak current $10 \times I_{\text{Input}}$ (1 s),
	AC: 15...400 Hz (true root mean square)		
Input signal	Power cable can be connected to the terminals	Number of inputs	1

Output (digital)

Alarm function	Surge current, Under-current, Alarm delay: 0...10 s	Max. switching voltage, AC	250 V
Max. switching voltage, DC	24 V	Number of digital outputs	1
Rated switching current	2 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	Type (analogue output)	Voltage and current output (configurable)

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General data

Accuracy	$\leq \pm 0.3\% @ 1\text{ A} / 5\text{ A}$, $\leq \pm 0.6\% @ 10\text{ A}$	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	$\leq \pm 100\text{ ppm/K @ -25...+55 }^\circ\text{C}$, $\leq \pm 200\text{ ppm/K @ +55...+70 }^\circ\text{C}$	Type of connection	Screw connection
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 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	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 6.0	EC002475	ETIM 7.0	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

Important note

Product information	<p>The device ACT20P-CML-10-AO-RC-S measures and monitors AC and DC currents of up to 10 A. The real effective value method used allows for precise measurement, even for distorted current curve shapes. The device features an integrated limit value monitoring function with an adjustable switching threshold, lag and hysteresis, as well as a relay output.</p> <p>Features</p> <ul style="list-style-type: none"> • Real effective value measurement (True RMS) or arithmetic averaging (AA) measurement • 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
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Data sheet

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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN
Software	DIP switch configuration tool
User Documentation	Instruction sheet

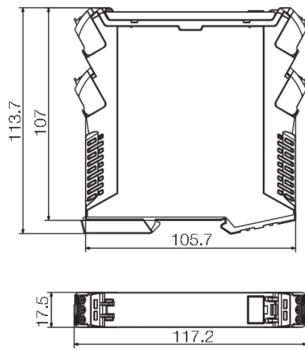
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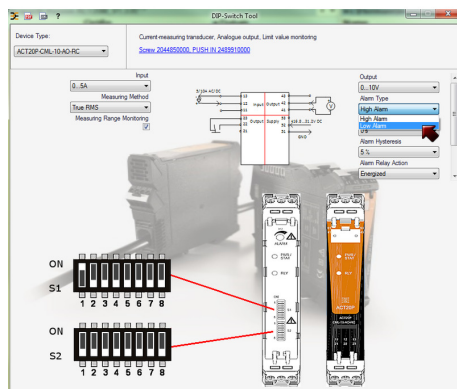
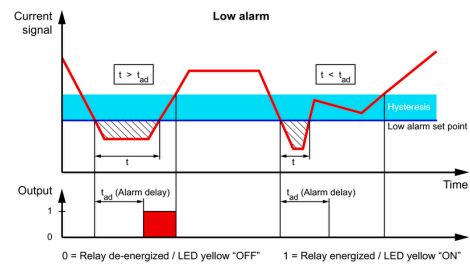
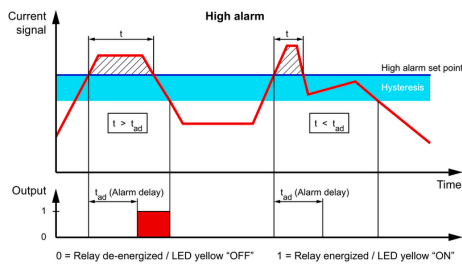
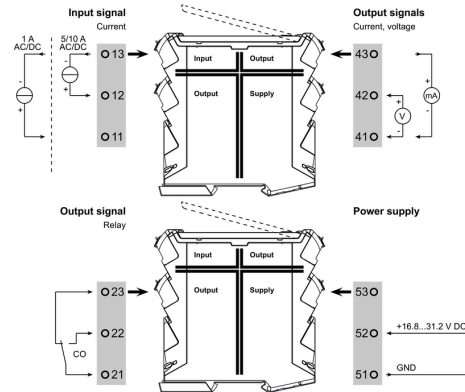
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Drawings

Dimensioned drawing



Connection diagram



Configuration

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

example for DIP switch setting (with ACT20 tool)