

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).

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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	17.5 mm	Width (inches)	0.689 inch
Net weight	141 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...1/5/10 A AC (RMS) or DC, max. peak current $10 \times I_{\text{Input}}$ (1 s), For DC current measurement (AA): Current direction display at the output (-/+ analog value)
	AC: 15...400 Hz (true root mean square)		
Number of inputs	1	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 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	Transmit function	direct or inverted
Type (analogue output)	Voltage and current output (configurable)		

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Technical data**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	Nominal power consumption	0.9 VA
Power consumption, max.	2.2 W	Protection degree	IP20
Rail	TS 35	Step response time	$\leq 300\text{ ms (RMS)}, \leq 60\text{ ms (AA)}$
Temperature coefficient	$\leq \pm 100\text{ ppm/K @ } -25\dots +55\text{ }^\circ\text{C}, \leq \pm 200\text{ ppm/K @ } +55\dots +70\text{ }^\circ\text{C}$	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 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
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
ECLASS 14.0	27-21-01-23		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c, 7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

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Important note

Product information

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.

Features

- 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

Approvals

Approvals



Approvals MAMID

https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/

ROHS

Conform

UL File Number Search

UL Website

Certificate no. (cULus)

E141197

Downloads

Approval/Certificate/Document of Conformity

[Certification DNV GL](#)
[Certification UL](#)
[Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

Software

[DIP switch configuration tool](#)

User Documentation

[instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

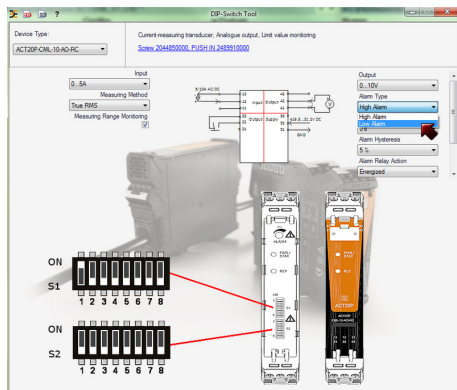
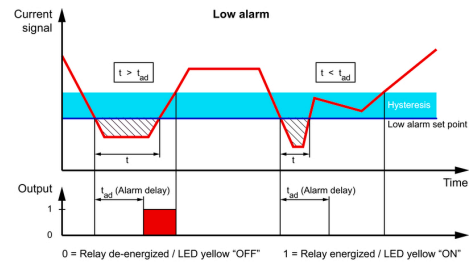
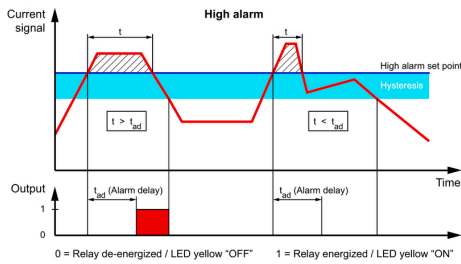
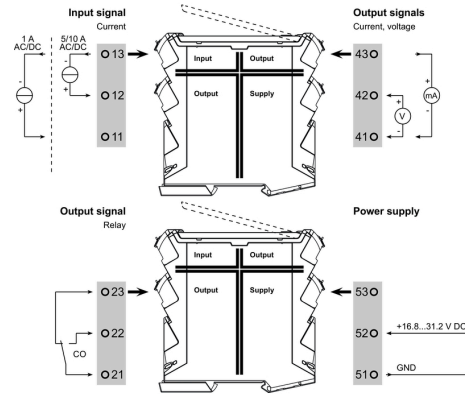
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Drawings

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								
Alarm delay time	0 s									-10...+10 V								
	2 s									0...+20 mA								
	5 s									4...20 mA								
	10 s									-20...+20 mA								
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																
		High alarm								1								
		Low alarm								8								

example for DIP switch setting (with ACT20 tool)

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Accessories

Blank



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 6.6/15 BHZ 5.00/03	Version
Order No.	1082520000	ESG, Device markers x 15 mm, PA 66, Colour: white
GTIN (EAN)	4032248845323	
Qty.	200 pc(s).	

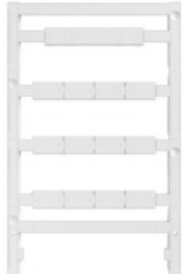
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General ordering data

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