ACT20P-CML-10-AO-RC-S

Weidmüller

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

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 items

ACT20P-CML-10-AO-RC-S

Technical data

Approvals

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

Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.4724 inch
Height	119.2 mm	Height (inches)	4.6929 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

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

Input

Number inputs	1	Input frequency	AC: 15...400 Hz (true root mean square)
Input measurement range	configurable, 0...1/5/10 A AC (RMS) or DC, max. peak current 10 × IInput (1 s), For DC current measurement (AA): Current direction display at the output (-/+ analog value)	Overload behaviour	Max. peak current: 10 × IInput for 1s

Output

Load impedance current	≤ 600 Ω	Type	active, connected control must be passive

Output (digital)

Rated switching current	2 A	Continuous current	2 × I Input
Number of digital outputs	1	Max. switching voltage, AC	250 V

ACT20P-CML-10-AO-RC-S

Technical data

Max. switching voltage, DC	24 V	Type	Relay, 1 CO contact, normal / inverse adjustment
Alarm function	Surge current, Under-current, Alarm limit setting: 2 - 105 %, Hysteresis 5% / 10%, Alarm delay: 0...10 s		

Output (analogue)

Type (analogue output)	Voltage and current output (configurable)	Transmit function	direct or inverted
Output voltage	Adjustable, 0...10 V, 2...10 V, 0...5 V, 1...5 V, -5...+5 V, -10...+10 V	Load resistance voltage	≥ 10 kΩ
Number analogue outputs	1	Load resistance current	≤ 600 Ω
Output current	Adjustable, 0...20 mA, 4...20 mA, -20...+20 mA		

General data

Accuracy	≤ ±0.3 % @ 1 A / 5 A, ≤ ±0.6 % @ 10 A	Protection degree	IP20
Supply voltage	16,8 V...31,2 V	Step response time	≤ 300 ms (RMS), ≤ 60 ms (AA)
Mounting rail	TS 35	Temperature coefficient	≤ ±100 ppm/K @ -25...+55 °C, ≤ ±200 ppm/K @ +55...+70 °C
Nominal power consumption	0.9 VA	Configuration	DIP switch and potentiometer
Power consumption, max.	2.2 W		

Insulation coordination

Impulse withstand voltage	6 kV (1.2/50 µs)	EMC standards	EN 61326-1
Test voltage	4 kV	Surge voltage category	III
Pollution severity	2	Galvanic isolation	4-way isolator;, between input / output / supply / relay
Insulation voltage	4 kVeff / 1 min.	Rated voltage	300 V ACrms

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 mm²
Clamping range, min.	0.5 mm²	Clamping range, max.	2.5 mm²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

Part description

Product description	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

ACT20P-CML-10-AO-RC-S

Technical data

- 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

Classifications

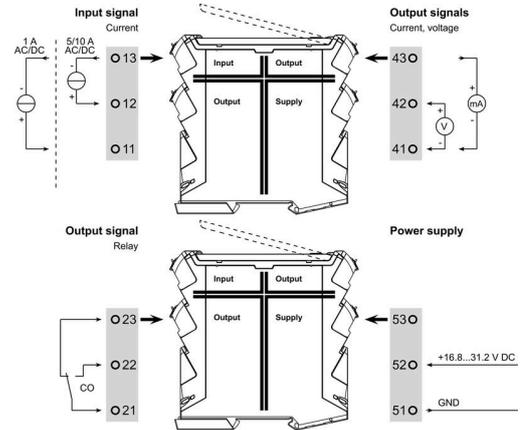|			
ETIM 8.0	EC002475	ETIM 9.0	EC002475
ETIM 10.0	EC002475	ECLASS 14.0	27-21-01-23
ECLASS 15.0	27-21-01-23		

ACT20P-CML-10-AO-RC-S

Drawings

Connection diagram

High alarm

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

Low alarm

0 = Relay de-energized / LED yellow "OFF"   1 = Relay energized / LED yellow "ON"
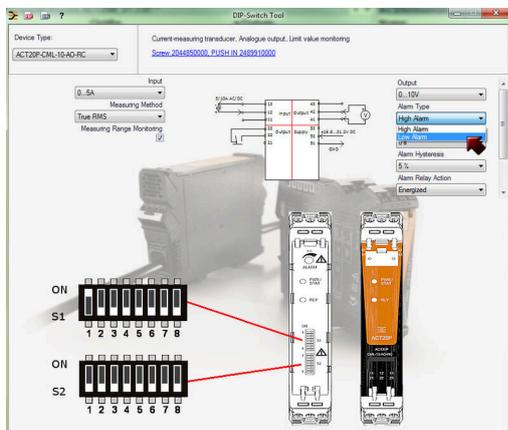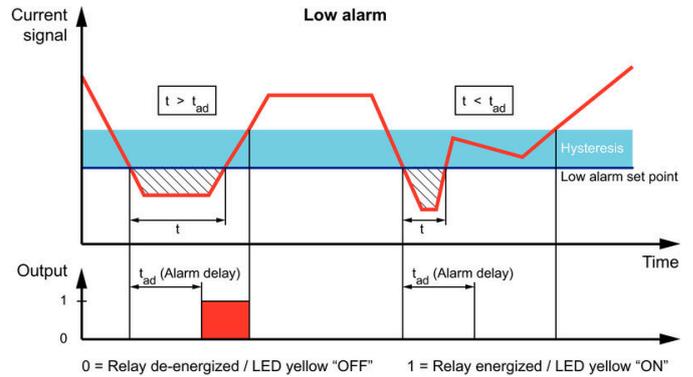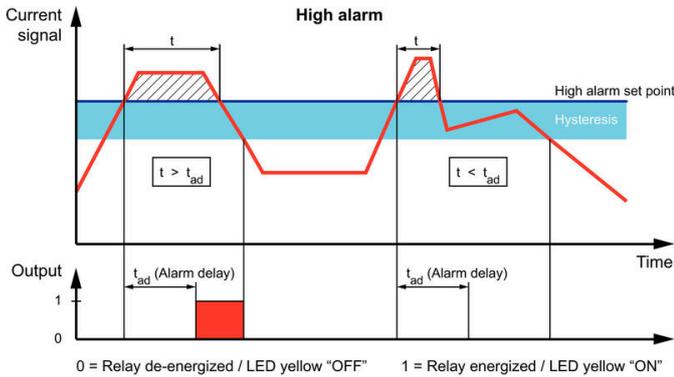
example for DIP switch setting (with ACT20 tool)

Configuration

Current input range	DIP switch S1							
	1	2	3	4	5	6	7	8
0...1 A								
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								■

Output range	DIP switch S2							
	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							■	

Creation date 04.03.2026 09:00:40 MEZ

ACT20P-CML-10-AO-RC-S

Accessories

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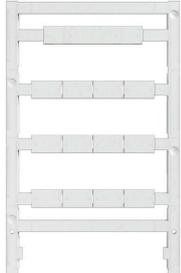
ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

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 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	pluggable
Qty.	5 ST	

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