ACT20P
ACT20P-CML-10-AO-RC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image

ACT20P: The flexible solution
- Precise and highly functional signal converters
- Release levers simplify handling

General ordering data

Type	ACT20P-CML-10-AO-RC-S
Order No.	2044850000
Version	Current-measuring transducer, Limit value monitoring, Signal converter/isolator, Current monitoring, Analogue output, Screw connection, Input measurement range: configurable, 0... 1/5/10 A AC (RMS) or DC
GTIN (EAN)	4050118409680
Qty.	1 pc(s).

ACT20P
ACT20P-CML-10-AO-RC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Dimensions and weights

Width	17.5 mm	Width (inches)	0.689 inch
Height	119.2 mm	Height (inches)	4.693 inch
Depth	113.6 mm	Depth (inches)	4.472 inch
Net weight	141 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
Ambient temperature	-25 °C...+70 °C	Storage temperature	-40 °C...85 °C

Probability of failure

MTTF	130 Years

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Input

Number of inputs	1	Input signal	Power cable can be connected to the terminals
Input measurement range	configurable, 0...1/5/10 A AC (RMS) or DC	Input frequency	AC: 15...400 Hz (true root mean square), AC: 50 Hz (arithmetic average)

General data

Accuracy	≤ ±0.3 % @ 1 A / 5 A, ≤ ±0.6 % @ 10 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	≤ 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 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		

ACT20P
ACT20P-CML-10-AO-RC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

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	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	2 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 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

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E141197

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		

Product information

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

ACT20P
ACT20P-CML-10-AO-RC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Approvals

Approvals	
ROHS	Conform

Downloads

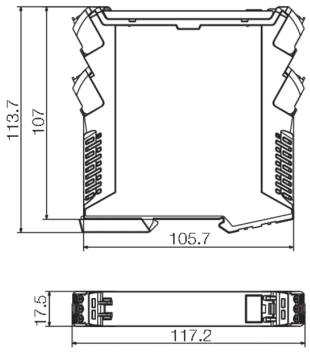
Approval/Certificate/Document of Conformity	DNV GL certification Declaration of Conformity
Engineering Data	EPLAN
Engineering Data	STEP
Software	DIP switch configuration tool
User Documentation	Instruction sheet

ACT20P
ACT20P-CML-10-AO-RC-S

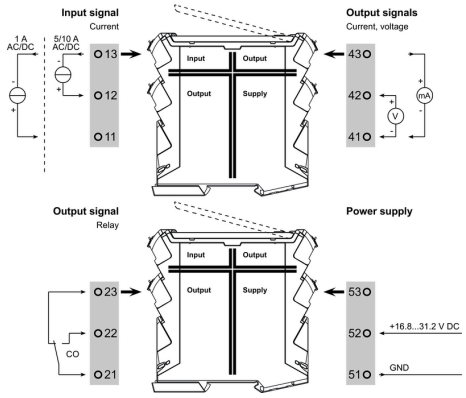
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

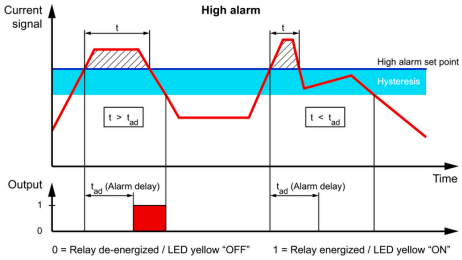
Drawings

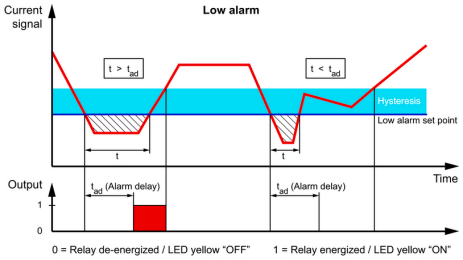
Dimensioned drawing

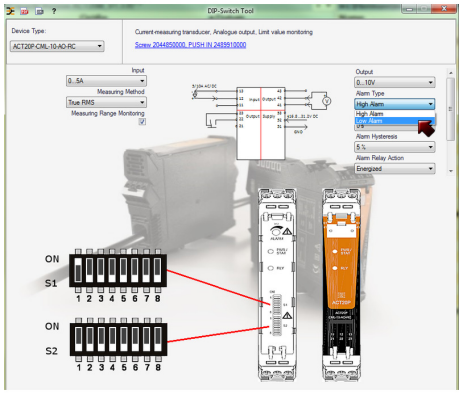


Connection diagram









example for DIP switch setting (with ACT20 tool)

Configuration

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

DIP switch S2	1	2	3	4	5	6	7	8
Output range								
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								
Energized								
De-energized						■		
Alarm hysteresis								
5 %								
10 %							■	
Alarm type								
High alarm								
Low alarm								■