ACT20P-CMT-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...5/10 A, Analogue output, Relay output, Current-carrying cable in feed-through hole
Order No.	1510470000
Type	ACT20P-CMT-10-AO-RC-S
GTIN (EAN)	4050118319583
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	22.5 mm	Width (inches)	0.886 inch
Net weight	211 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

Input

Input frequency	AC: 15...700 Hz (true root mean square)	Input measurement range	configurable, 0...5/10 A AC (RMS) or DC, max. peak current 10 × I_{Input} (1 s), max. peak current 2 × I_{Input} (1 s) @ 5/10 A DC, For DC current measurement (AA): Current direction display at the output (-/+ analog value), max. peak current 2 × $I_{Input\ (1\ s)}$
Input signal	Current-carrying cable in feed-through hole	Number of inputs	1
Overload behaviour	Max. peak current: 10 × IInput for 1s		

Output

Type	active, connected control must be passive

Output (digital)

Alarm function	Surge current, Under-current, Alarm limit setting: 2 - 105 %, Hysteresis 5% / 10%, Alarm delay: 0...10 s	Continuous current	2 × I Input
Max. switching voltage, AC	250 V	Max. switching voltage, DC	24 V
Number of digital outputs	1	Rated switching current	6 A
Switching thresholds	2...105% of measurement range	Type	Relay, 1 CO contact, normal / inverse adjustment

Output (analogue)

Load resistance current	≤ 600 Ω	Load resistance voltage	≥ 10 kΩ
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

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General data

Accuracy	<0.75 % FSR	Configuration	DIP switch and potentiometer
Power consumption, max.	2.2 W	Power consumption, typ.	0.9 W
Protection degree	IP20	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	EN 61326-1	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

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

Classifications

ETIM 6.0	EC002475	ETIM 7.0	EC002475
ETIM 8.0	EC002475	ETIM 9.0	EC002475
ETIM 10.0	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
ECLASS 15.0	27-21-01-23		

Environmental Product Compliance

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

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Important note

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	
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Downloads

Approval/Certificate/Document of Conformity	Certification DNV GL Declaration of Conformity
Engineering Data	CAD data – STEP
Software	DIP switch configuration tool
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

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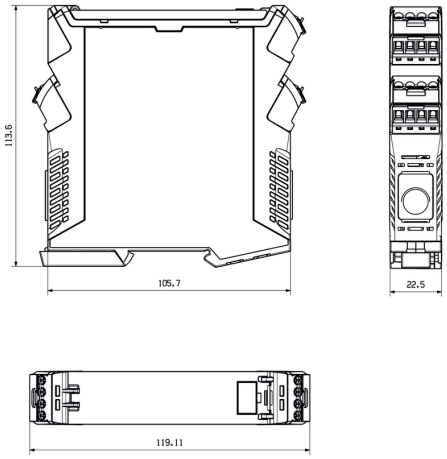
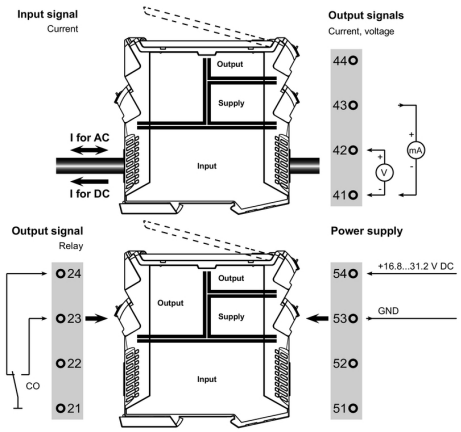
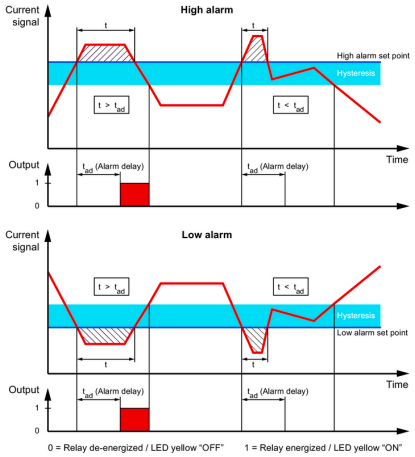
Drawings

Dimensioned drawing



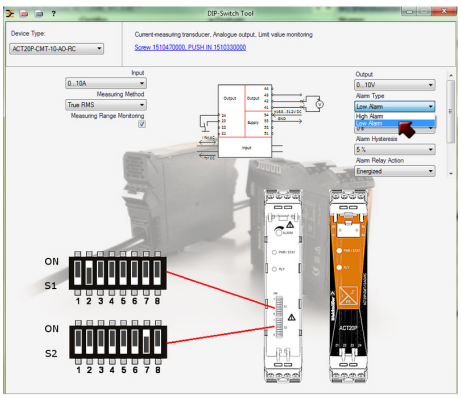




Configuration

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



example for DIP switch setting (with ACT20 tool)