

ACT20P-CMT-60-AO-RC-S**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Similar to illustration****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...40/50/60 A, Analogue output, Relay output, Current-carrying cable in feed-through hole
Order No.	1510440000
Type	ACT20P-CMT-60-AO-RC-S
GTIN (EAN)	4050118319620
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	158 g		

Temperatures

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

Probability of failure

MTTF	158 a
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Input

Input frequency		Input measurement range	configurable, 0...40/50/60 A AC 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...700 Hz (true root mean square)		
Input signal	Current-carrying cable in feed-through hole	Number of inputs	1
Outer cable diameter, max.	10 mm	Overload behaviour	Max. peak current: $10 \times I_{\text{Input}}$ for 1 s

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 delay: 0...10 s, Hysteresis 5% / 10%	Continuous current	$2 \times I_{\text{Input}}$
Max. switching frequency	20 Hz	Max. switching voltage, AC	250 V
Max. switching voltage, DC	24 V	Number of digital outputs	1
Rated switching current	6 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)	'active', 'connected control must be passive'		

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General data

Accuracy	<0.75 % FSR, <1.5 % FSR with measurement range 50/60 A AC	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	0.01%/K @ 0...40 A, 0.10%/K @ 40...55 A, 0.30%/K @ 55...60 A	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 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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

Important note

Product information	<p>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.</p> <p>Features</p> <ul style="list-style-type: none"> • 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
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Approvals



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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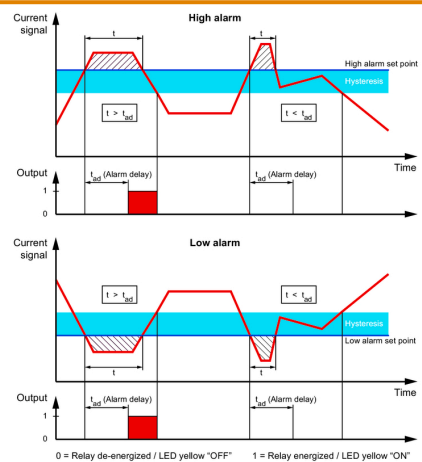
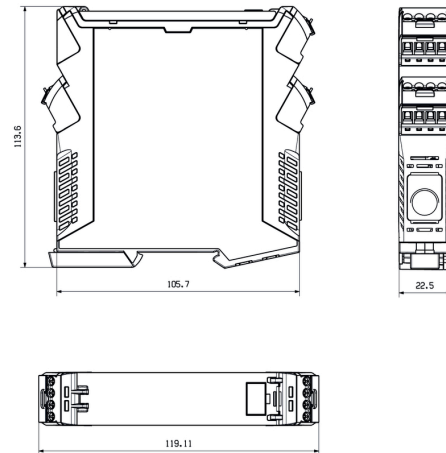
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Drawings



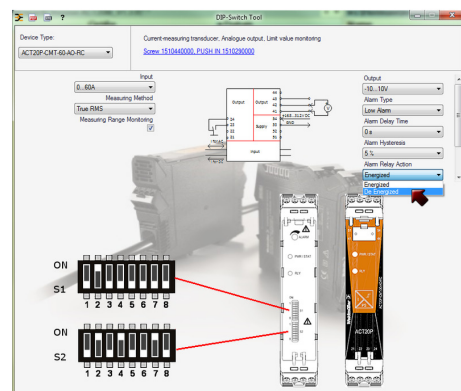
Dimensioned drawing



Configuration

DIP switch S1							
Current input range	1	2	3	4	5	6	7
0...40 A							
0...50 A							
0...60 A							
Measuring method	1	2	3	4	5	6	7
True RMS							
Arithmetic average							
Alarm delay time	1	2	3	4	5	6	7
0 s							
2 s							
5 s							
10 s							
Measuring range monitoring	1	2	3	4	5	6	7
Yes							
No							
Output error action	1	2	3	4	5	6	7
Upscale							
Downscale							
Transfer function	1	2	3	4	5	6	7
Normal							
Inverse							

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



example for DIP switch setting (with ACT20 tool)

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