

**ACT20P-CMT-30-AO-RC-S**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://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...20/25/30 A, Analogue output, Relay output, Current-carrying cable in feed-through hole
Order No.	<a href="#">1510540000</a>
Type	ACT20P-CMT-30-AO-RC-S
GTIN (EAN)	4050118319590
Qty.	1 pc(s).

Creation date November 26, 2024 11:49:42 AM CET

Catalogue status 26.11.2024 / We reserve the right to make technical changes.

## ACT20P-CMT-30-AO-RC-S

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## 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
------	-------

### Input

Input frequency		Input measurement range	configurable, 0... 20/25/30 A AC (RMS) or DC, max. peak current $10 \times I_{\text{Input}}$ (1 s), For DC current measurement (AA): Cur- rent direction display at the output (-/+ analog value)
Input signal	AC: 15...700 Hz (true root mean square) Current-carrying cable in feed-through hole	Number of inputs	1
Overload behaviour	Max. peak current: $10 \times I_{\text{Input}}$ for 1s		

### Output

Type	active, connected control must be passive
------	--

### Output (digital)

Alarm function	Surge current, Under-cur- rent, 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	6 A
Type	Relay, 1 CO contact, nor- mal / 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

## ACT20P-CMT-30-AO-RC-S

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

### General data

Accuracy	<0.75 % FSR	Configuration	DIP switch and potentiometer
Galvanic isolation	4-way isolator,, between input / output / supply / relay	Power consumption, max.	2.2 W
Protection degree	IP20	Rail	TS 35
Step response time	≤ 300 ms (RMS), ≤ 60 ms (AA)	Temperature coefficient	typ. 0.04 % / K, max. 0.09 % / K
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 <sub>eff</sub> / 1 min.
Pollution severity	2	Rated voltage	300 V AC <sub>rms</sub>
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 <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
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

**ACT20P-CMT-30-AO-RC-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Technical data****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



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

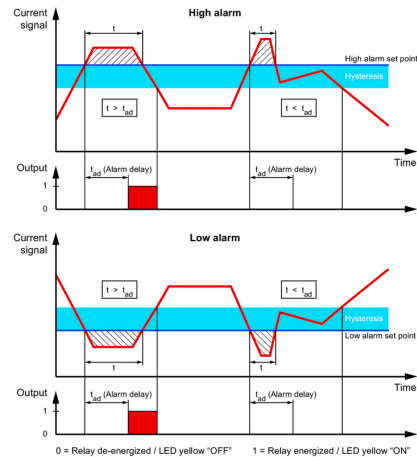
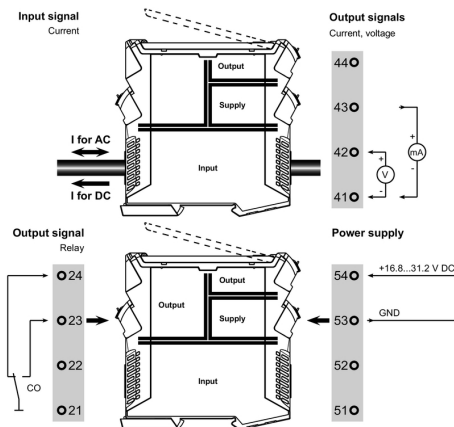
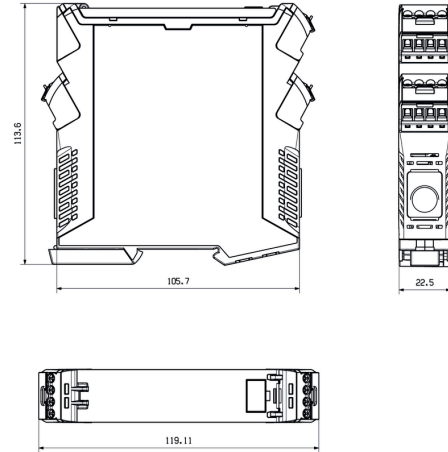
**ACT20P-CMT-30-AO-RC-S**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

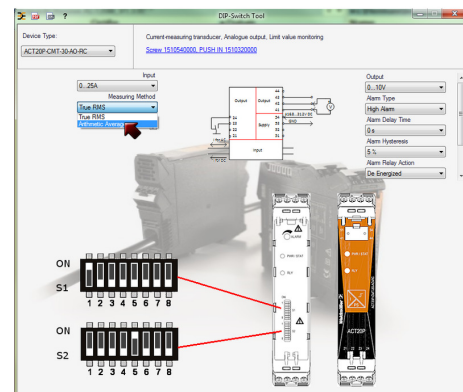
**Drawings**

**Dimensioned drawing**



**Configuration**

DIP switch S1		DIP switch S2	
<b>Current input range</b>	1 2 3 4 5 6 7 8	<b>Output range</b>	1 2 3 4 5 6 7 8
0...20 A	<input type="checkbox"/>	0...10 V	<input type="checkbox"/>
0...25 A	<input checked="" type="checkbox"/>	2...10 V	<input type="checkbox"/>
0...30 A	<input type="checkbox"/>	0...5 V	<input type="checkbox"/>
<b>Measuring method</b>	1 2 3 4 5 6 7 8	1...5 V	<input checked="" type="checkbox"/>
True RMS	<input type="checkbox"/>	-5...+5 V	<input type="checkbox"/>
Arithmetic average	<input checked="" type="checkbox"/>	-10...+10 V	<input type="checkbox"/>
<b>Alarm delay time</b>	1 2 3 4 5 6 7 8	0...20 mA	<input type="checkbox"/>
0 s	<input type="checkbox"/>	4...20 mA	<input type="checkbox"/>
2 s	<input type="checkbox"/>	-20...+20 mA	<input type="checkbox"/>
5 s	<input type="checkbox"/>	<b>Alarm relay action</b>	1 2 3 4 5 6 7 8
10 s	<input checked="" type="checkbox"/>	Energized	<input type="checkbox"/>
<b>Measuring range monitoring</b>	1 2 3 4 5 6 7 8	De-energized	<input checked="" type="checkbox"/>
Yes	<input type="checkbox"/>	<b>Alarm hysteresis</b>	1 2 3 4 5 6 7 8
No	<input checked="" type="checkbox"/>	5 %	<input type="checkbox"/>
<b>Output error action</b>	1 2 3 4 5 6 7 8	10 %	<input type="checkbox"/>
Upscale	<input type="checkbox"/>	<b>Alarm type</b>	1 2 3 4 5 6 7 8
Downscale	<input checked="" type="checkbox"/>	High alarm	<input type="checkbox"/>
<b>Transfer function</b>	1 2 3 4 5 6 7 8	Low alarm	<input checked="" type="checkbox"/>
Normal	<input type="checkbox"/>		
Inverse	<input checked="" type="checkbox"/>		



example for DIP switch setting (with ACT20 tool)

**ACT20P-CMT-30-AO-RC-S**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

**Drawings**

