

ACT20P-CMT-10-AO-RC-S

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...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 items |

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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 | 22.5 mm | Width (inches) | 0.8858 inch |
| Net weight | 184.8 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...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 |
| Overload behaviour | Max. peak current: 10 × I _{Input} for 1s | | |

Output

| | | | |
|------|---|-------------------|--------------------|
| Type | active, connected control must be passive | Transmit function | direct or inverted |
|------|---|-------------------|--------------------|

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Output (digital)

| | | | |
|----------------------------|--|----------------------------|--|
| Rated switching current | 6 A | Continuous current | 2 × I Input |
| Number of digital outputs | 1 | Max. switching voltage, AC | 250 V |
| 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)

| | | | |
|-------------------------|--|-------------------------|---------|
| 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 | <0.75 % FSR | 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 |
| Configuration | DIP switch and potentiometer | Power consumption, max. | 2.2 W |
| Power consumption, typ. | 0.9 W | | |

Insulation coordination

| | | | |
|---------------------------|--------------------|------------------------|---|
| Impulse withstand voltage | 6.4 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 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 |

Part description

| | | | |
|---------------------|--|--|--|
| Product description | <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 | | |
|---------------------|--|--|--|

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Technical data

- 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

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 | | |

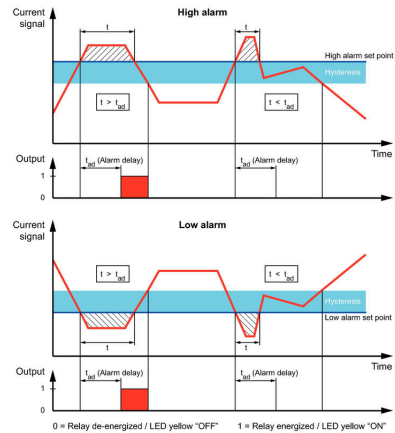
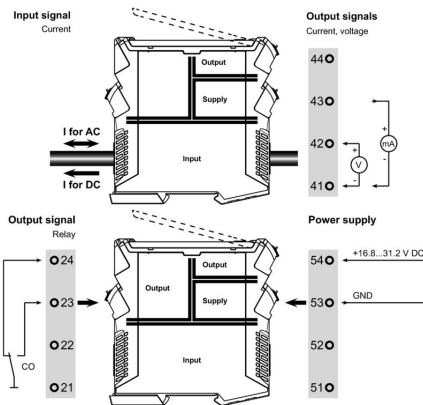
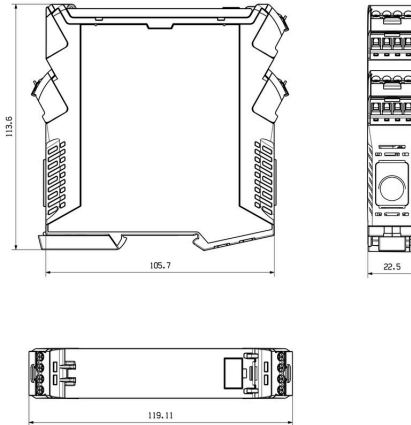
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Drawings

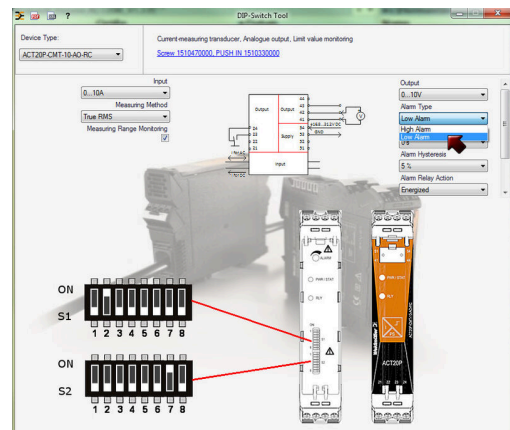
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Dimensioned drawing



Configuration

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



example for DIP switch setting (with ACT20 tool)

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Accessories

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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, pluggable | |
| GTIN (EAN) | 4032248541164 | | |
| Qty. | 5 ST | | |
| Type | ESG 6.6/20 BHZ 5.00/04 | Version | |
| Order No. | 1082540000 | ESG, Device markers x 20 mm, PA 66, Colour: white, pluggable | |
| GTIN (EAN) | 4032248845439 | | |
| Qty. | 200 ST | | |