

**ACT20P**  
**ACT20P-CMT-60-AO-RC-S**

**Weidmüller Interface GmbH & Co. KG**  
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**Similar to illustration****ACT20P: The flexible solution**

- Precise and highly functional signal converters
- Release levers simplify handling

**General ordering data**

|            |                                                                                                                                                                                                         |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type       | ACT20P-CMT-60-AO-RC-S                                                                                                                                                                                   |
| Order No.  | <a href="#">1510440000</a>                                                                                                                                                                              |
| Version    | Current-measuring transducer, Limit value monitoring, Signal converter/isolator, Current monitoring, Analogue output, Screw connection, Input measurement range: configurable, 0... 40/50/60 A AC or DC |
| GTIN (EAN) | 4050118319620                                                                                                                                                                                           |
| Qty.       | 1 pc(s).                                                                                                                                                                                                |

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### Technical data

#### Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 22.5 mm  | Width (inches)  | 0.886 inch |
| Height     | 119.2 mm | Height (inches) | 4.693 inch |
| Depth      | 113.6 mm | Depth (inches)  | 4.472 inch |
| Net weight | 158 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 |
| Storage temperature         | -40 °C...85 °C            |                             |                |

#### Probability of failure

|      |           |
|------|-----------|
| MTTF | 158 Years |
|------|-----------|

#### Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

#### Input

|                         |                                       |                 |                                                                         |
|-------------------------|---------------------------------------|-----------------|-------------------------------------------------------------------------|
| Number of inputs        | 1                                     | Input signal    | Current-carrying cable in feed-through hole, Diameter 10.5 mm           |
| Input measurement range | configurable, 0...40/50/60 A AC or DC | Input frequency | AC: 15...700 Hz (true root mean square), AC: 50 Hz (arithmetic average) |

#### 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             | IEC 61326-1, IEC 61010-2-201 | 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                          |                    |                                                   |

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### Output (analogue)

|                         |                                                   |                         |                                                                          |
|-------------------------|---------------------------------------------------|-------------------------|--------------------------------------------------------------------------|
| Load resistance current | $\leq 600 \Omega$                                 | Load resistance voltage | $\geq 10 \text{ k}\Omega$                                                |
| Output current          | Adjustable, 0...20 mA,<br>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, Hysteresis 5% / 10% | 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    | 6 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 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              |

### 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 | <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"> <li>• Real effective value measurement (True RMS) or arithmetic averaging (AA) measurement and contactless through-hole technology</li> <li>• Limit value monitoring for overcurrent or undercurrent</li> <li>• Relay output by means of the open-circuit / closed-circuit principle</li> <li>• Adjustable trigger delay for filtering current peaks</li> <li>• Operational status and error display on a front panel LED and output signalling according to NE43, NE44, NE107</li> <li>• Galvanic four-way insulation for secure isolation according to IEC/EN 61010-2-201</li> </ul> |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Technical data

### Approvals

Approvals



ROHS

Conform

### Downloads

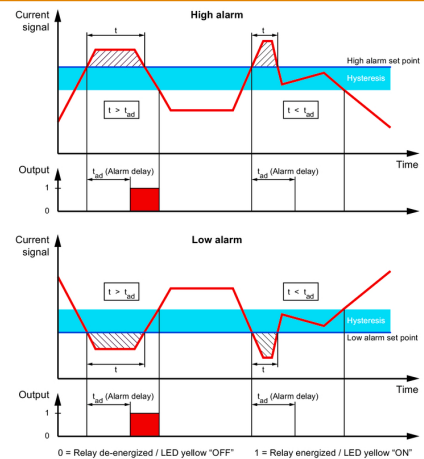
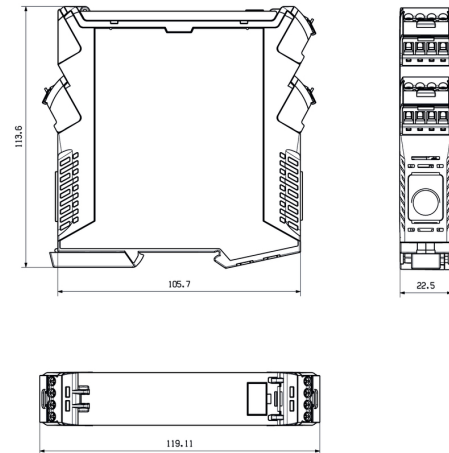
|                                             |                                                                                   |
|---------------------------------------------|-----------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DNV GL certification</a><br><a href="#">Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.1 ELECTR 16/17 EN</a>                                           |
| Engineering Data                            | <a href="#">EPLAN_WSCAD</a>                                                       |
| Engineering Data                            | <a href="#">STEP</a>                                                              |
| Software                                    | <a href="#">DIP switch configuration tool</a>                                     |
| User Documentation                          | <a href="#">Instruction sheet</a>                                                 |

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# Drawings

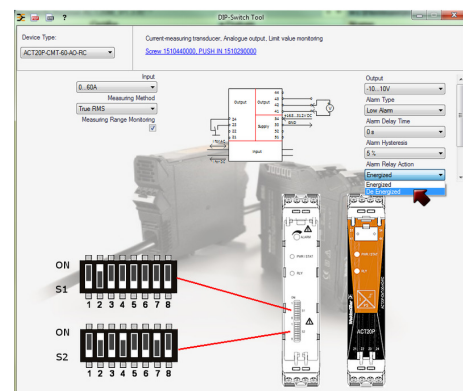
## Dimensioned drawing



## 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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# Drawings

