

**ACT20C-CMT-10-AO-RC-S**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)


The ACT20C series was especially developed for applications with continuous processes. It enables the continuous monitoring of diagnostic, device and process information ("condition monitoring").

Several ACT20C components form a station which consists of an ACT20C Ethernet gateway, communicative ACT20C signal converters and an ACT20C bus termination terminal.

**General ordering data**

|            |  |
|------------|--|
| Version    | Current-measuring transducer, Input : 0...5/10 A, Output : 0(4)-20 mA, 0-10 V, Relay |
| Order No.  | <a href="#">1510240000</a>   |
| Type       | ACT20C-CMT-10-AO-RC-S  |
| GTIN (EAN) | 4050118319460  |
| 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     | 117.2 mm | Height (inches) | 4.6142 inch |
| Width      | 22.5 mm  | Width (inches)  | 0.8858 inch |
| Net weight | 154 g    |                 |             |

## Temperatures

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

## Probability of failure

|                                  |      |      |       |
|----------------------------------|------|------|-------|
| SIL in compliance with IEC 61508 | None | MTTF | 130 a |
|----------------------------------|------|------|-------|

## Environmental Product Compliance

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

## Input

|                 |   |                         |   |
|-----------------|---|-------------------------|---|
| Input frequency | AC: 15...700 Hz   | Input measurement range | configurable, 0...5/10 A AC (RMS) or DC |
| Input signal    | Current-carrying cable in feed-through hole, Diameter 10.5 mm |                         |   |

## Interface 1

|           |   |
|-----------|---|
| Interface | Communication via CH20M rail bus with gateway (ACT20C-GTW-100-MTCP-S) |
|-----------|---|

## Output

|                        |         |
|------------------------|---------|
| Load impedance current | ≤ 600 Ω |
|------------------------|---------|

## Output (digital)

|                            |      |                            |  |
|----------------------------|------|----------------------------|--|
| Rated switching current    | 6 A  | Max. switching voltage, AC | 250 V  |
| Max. switching voltage, DC | 24 V | Type                       | Relay, 1 CO contact, Process alarms (4x) with hysteresis, with alarm |

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delay (configurable) 0...  
180 s

### Output (analogue)

|                         |  |                         |  |
|-------------------------|--|-------------------------|--|
| Type (analogue output)  | Voltage and current output (configurable)      | 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  | Load resistance current | ≤ 600 Ω  |
| Output current          | Adjustable, 0...20 mA, 4...20 mA, -20...+20 mA |                         |  |

### alarm output

|                   |     |
|-------------------|-----|
| Switching current | 5 A |
|-------------------|-----|

### General data

|                         |   |                           |                    |
|-------------------------|---|---------------------------|--------------------|
| Accuracy                | <0.75 % FSR   | Supply voltage            | via the system bus |
| Step response time      | <300 ms   | Mounting rail             | TS 35              |
| Temperature coefficient | typ. 0.04 % / K, max. 0.09 % / K  | Nominal power consumption | 3 VA               |
| Configuration           | With FDT/DTM software, via gateway (ACT20C-GTW-100-MTCP-S), Addressing via DIP switches | Power consumption, max.   | 2.2 W              |

### Insulation coordination

|                           |                    |                        |   |
|---------------------------|--------------------|------------------------|---|
| Impulse withstand voltage | 6.4 kV (1.2/50 μs) | EMC standards          | IEC 61326-1                                       |
| Test voltage              | 4 kV               | Surge voltage category | III   |
| Pollution severity        | 2                  | Galvanic isolation     | 4-way isolator, between input/output/supply/relay |
| Rated voltage             | 300 V ACrms        |                        |   |

### Connection data

|   |                     |   |                     |
|---|---------------------|---|---------------------|
| Type of connection                      | Screw connection    | Tightening torque, min.                 | 0.5 Nm              |
| Tightening torque, max.                 | 3.5 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 30              | Wire connection cross section AWG, max. | AWG 14              |
| Wire cross-section, solid, min.         | 0.5 mm <sup>2</sup> | Wire cross-section, solid, max.         | 2.5 mm <sup>2</sup> |

### Part description

|                     |   |
|---------------------|---|
| Product description | <p>The ACT20C-CMT-XX-AO-RC-S current measuring transducers from the ACT20C series measure and monitor DC and AC currents of up to 60 A. The True RMS method used allows for precise measurement, even in case of distorted current waveforms. The devices feature integrated limit value monitoring with an adjustable switching threshold, delay and hysteresis, as well as a relay output.</p> <p>Properties</p> <ul style="list-style-type: none"> <li>• True RMS value measurement 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>• Infinitely variable trigger delay</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 61010-2-201:2013</li> </ul> |
|---------------------|---|

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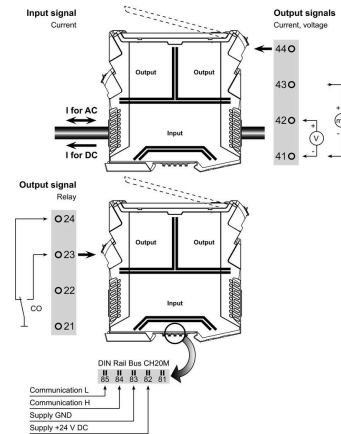
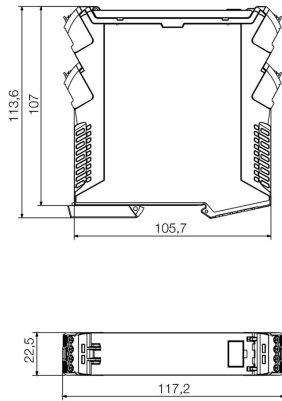
[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 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 |             |             |

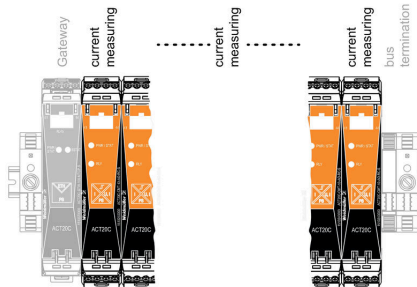
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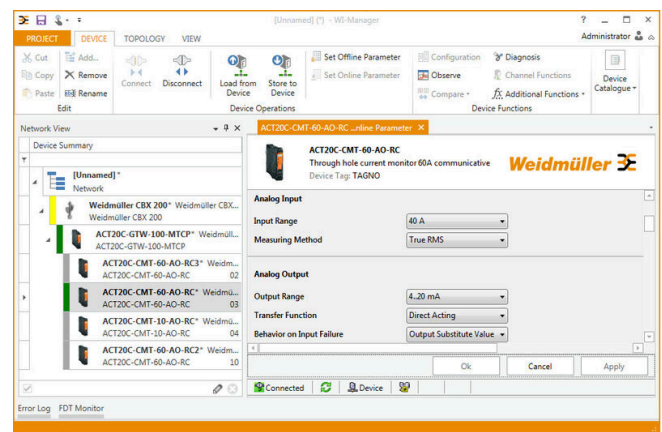
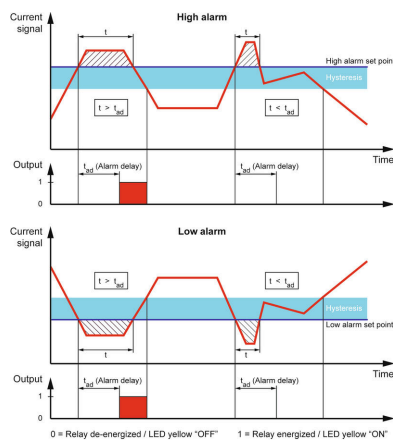
**Drawings**
**Dimensioned drawing**


ACT20C-CMT-60-AO-RC-S is part of the  
 ACT20C- Station


**Configuration**

| User address | DIP switch S1 |   |   |   |   |   |
|--------------|---------------|---|---|---|---|---|
|              | 1             | 2 | 3 | 4 | 5 | 6 |
| 2            |               |   |   |   |   |   |
| 3            |               |   |   |   |   |   |
| 4            |               |   |   |   |   |   |
| 5            |               |   |   |   |   |   |
| 6            |               |   |   |   |   |   |
| 7            |               |   |   |   |   |   |
| 8            |               |   |   |   |   |   |
| ...          |               |   |   |   |   |   |
| 16           |               |   |   |   |   |   |
| ...          |               |   |   |   |   |   |
| 32           |               |   |   |   |   |   |
| 33           |               |   |   |   |   |   |

■ = ON



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**Accessories**
**ACT20 (incl. DIN rail bus & powersupplies)**


Power supply adapter modules for separate supply and distribution of the supply voltage; for the ACT20 series/ MICROSERIES signal converters.

The 22.5/6.1 mm wide power-feed modules are mounted directly adjacent to the analogue signal converters. Then the 24 VDC supply voltage is optionally bridged via the CH20M (ACT20-series) rail bus or simply bridged over using the pluggable ZQV 4N (MICROSERIES) cross-connectors.

The ACT20-Feed-In-PRO-S can also detect faults coming from any of the devices mounted on the CH20 bus mounting profile.

In the event of an error or fault, the integrated status relay sends a common alarm to the external controller. In addition, two power supply units (as primary and backup supply) can be connected to the ACT20 Feed-In PRO-S.

Two feed-in modules mounted to the CH20 bus mounting profile guarantee a 100% redundant power supply.

Three LEDs are used to show the status of the power supply and error messages.

The ACT20M-Feed-In PRO can also be used in Ex zone2 / Division2 applications.

**General ordering data**

|            |                            |   |
|------------|----------------------------|---|
| Type       | SAMPLE CH20M BUS 250MM     | Version   |
|            | ...                        |   |
| Order No.  | <a href="#">1335140000</a> | Mounting rail bus system, Sample set, OMNIMATE Housing - series |
| GTIN (EAN) | 4050118138375              | CH20M, Width: 25.1 mm   |
| Qty.       | 1 ST                       |   |

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## Accessories

### CH20M BUS SET - Kit



The integrated rail bus for the modular electronics housing system

When supplying, connecting or distributing within modular applications, the rail bus can replace the tedious individual wiring process with a flexible and uninterrupted system-wide solution.

The system bus is securely integrated within the 35-mm standard mounting rail. The SMD-bus contact block can be reflow-soldered so that it can be completely automatically processed during the component assembly. The resistant, gold-plated contact surfaces ensure a permanent and reliable contact for all housing widths.

- **Unlimited scalability** The integrated connection solution covers all system widths: from the 6-mm slice to the 67-mm large-area housing.
- **Easy to service during installation** It's easy to replace a module, even in existing modules groups – without any influence on the neighbouring modules.
- **Universal integration** The uninterrupted system bus is securely integrated within the 35-mm standard mounting rail.
- **Maximum availability** Five fully-galvanized and partially gold-plated twin-arched contacts are used to establish a permanent contact to the rail bus. THR solder flanges ensure that the connection to the circuit board is stable.

### General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | SAMPLE CH20M BUS 250MM     | Version   |
|            | ...                        |   |
| Order No.  | <a href="#">1335150000</a> | Mounting rail bus system, Sample set, OMNIMATE Housing - series |
| GTIN (EAN) | 4050118138382              | CH20M, Width: 25.1 mm   |
| Qty.       | 1 ST                       |   |

### Network-compatible current measuring transducers ACT20C



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### General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | ACT20C-LBT-10              | Version  |
| Order No.  | <a href="#">1510340000</a> | Bus termination terminal for ACT20C station, Input : 0...40/50/60 A, |
| GTIN (EAN) | 4050118319491              | Output : Pulse   |
| Qty.       | 1 ST                       |  |

# ACT20C-CMT-10-AO-RC-S

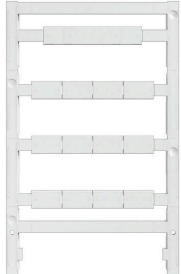
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## Accessories

### 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.  | <a href="#">1912130000</a> | 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.  | <a href="#">1082540000</a> | ESG, Device markers x 20 mm, PA 66, Colour: white, pluggable         |
| GTIN (EAN) | 4032248845439              |  |
| Qty.       | 200 ST                     |  |