

**ACT20M**  
**ACT20M-CI-CO-S**

**Weidmüller Interface GmbH & Co. KG**  
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[www.weidmueller.com](http://www.weidmueller.com)

**Product image, Similar to illustration****ACT20M: The slim solution**

- Safe and space-saving (6 mm) isolation and conversion
- Quick installation of the power supply unit using the CH20M mounting rail bus
- Easy configuration via DIP switch or FDT/DTM software
- Extensive approvals such as ATEX, IECEx, GL, DNV
- High interference resistance

**General ordering data**

|            |                                                                                           |
|------------|-------------------------------------------------------------------------------------------|
| Type       | ACT20M-CI-CO-S                                                                            |
| Order No.  | <a href="#">1175980000</a>                                                                |
| Version    | Signal converter/insulator, Signal converter/insulator, Input : 4-20 mA, Output : 4-20 mA |
| GTIN (EAN) | 4032248970131                                                                             |
| Qty.       | 1 pc(s).                                                                                  |

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**Technical data**
**Dimensions and weights**

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 6.1 mm   | Width (inches)  | 0.24 inch  |
| Height     | 112.5 mm | Height (inches) | 4.429 inch |
| Depth      | 114.3 mm | Depth (inches)  | 4.5 inch   |
| Net weight | 87 g     |                 |            |

**Temperatures**

|                             |                                             |                             |                |
|-----------------------------|---------------------------------------------|-----------------------------|----------------|
| Humidity                    | 40 °C / 93 % rel. humidity, no condensation | Operating temperature, max. | 70 °C          |
| Operating temperature, min. | -25 °C                                      | Storage temperature, max.   | 85 °C          |
| Storage temperature, min.   | -40 °C                                      | Operating temperature       | -25 °C...70 °C |
| Ambient temperature         | -25 °C...+70 °C                             | Storage temperature         | -40 °C...85 °C |

**Probability of failure**

|      |           |
|------|-----------|
| MTBF | 284 Years |
|------|-----------|

**Environmental Product Compliance**

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

**Rated data UL**

|                |             |
|----------------|-------------|
| UL certificate | E337701.pdf |
|----------------|-------------|

**Input**

|                           |                     |                             |                                                       |
|---------------------------|---------------------|-----------------------------|-------------------------------------------------------|
| Number of inputs          | 1                   | Sensor                      | Current source, Sensor with own supply, 4-wire sensor |
| Input current             | 0...20 mA, 4...20mA | Voltage drop, current input | < 1.5 V                                               |
| Input resistance, current | 70 Ω                |                             |                                                       |

**Output**

|                           |        |                        |                      |
|---------------------------|--------|------------------------|----------------------|
| Number of outputs         | 1      | Output current         | 0...20 mA, 4...20 mA |
| Cut-off frequency (-3 dB) | 100 Hz | load impedance current | ≤ 600 Ω, @ max 23mA  |

**General data**

|                         |                             |                         |               |
|-------------------------|-----------------------------|-------------------------|---------------|
| Accuracy                | < 0.05 % of measuring range | Configuration           | none          |
| Galvanic isolation      | 3-way isolator              | Power consumption, max. | 0.65 W        |
| Power consumption, typ. | 0.46 W                      | Rail                    | TS 35         |
| Step response time      | ≤ 7 ms                      | Temperature coefficient | ≤ 0.01 % / °C |
| Voltage supply          | 24 V DC ± 30 %              |                         |               |

**Insulation coordination**

|                    |                                |                        |                |
|--------------------|--------------------------------|------------------------|----------------|
| EMC standards      | IEC 61326-1, NE 21             | Galvanic isolation     | 3-way isolator |
| Insulation voltage | 2.5 kV <sub>eff</sub> / 1 min. | Pollution severity     | 2              |
| Rated voltage      | 300 V <sub>eff</sub>           | Surge voltage category | II             |

# ACT20M

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## Technical data

### Data for Ex applications (ATEX)

Marking II 3 G Ex nA IIC T4 Gc

### Connection data

|                                         |                     |                                         |                     |
|-----------------------------------------|---------------------|-----------------------------------------|---------------------|
| Type of connection                      | Screw connection    | Tightening torque, min.                 | 0.4 Nm              |
| Tightening torque, max.                 | 0.6 Nm              | Clamping range, rated connection        | 2.5 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              |

### Ratings IECEx/ATEX/cUL

|                         |                 |                         |                  |
|-------------------------|-----------------|-------------------------|------------------|
| Certificate No. (ATEX)  | KEMA10ATEX0183X | Certificate No. (IECEX) | IECEXKEM10.0090X |
| Certificate no. (cULus) | E337701         |                         |                  |

### Classifications

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC002653    | ETIM 7.0   | EC002653    |
| eClass 9.0  | 27-21-01-20 | eClass 9.1 | 27-21-01-20 |
| eClass 10.0 | 27-21-01-20 |            |             |

### Product information

Product information The non-adjustable DC isolating amplifier ACT20M-CI-CO-S isolates analogue standard current signals. An analogue input current signal is linearly converted to an analogue output current signal and is galvanically isolated. The power supply is galvanically isolated from the input and output (3-way isolation) by means of direct wiring or the Weidmüller rail bus.

The non-adjustable DC isolation amplifier ACT20M CI-2CO-S offers the same functionality, but has 2 galvanically isolated outputs (4-way isolation).

### Approvals

Approvals



ROHS Conform

### Downloads

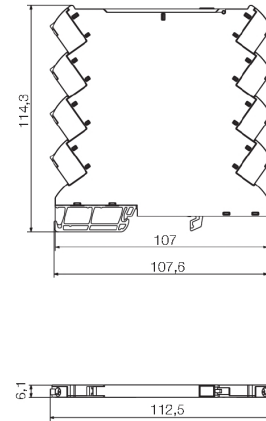
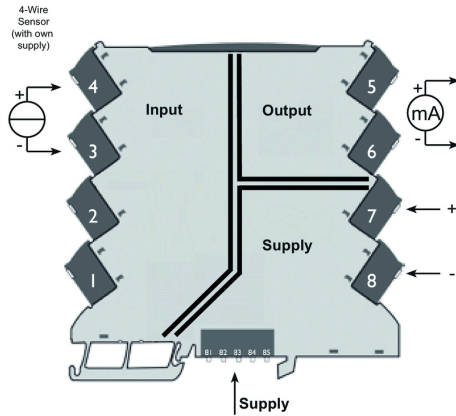
|                                             |                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DNV-GL certificate</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, Zuken E3.S</a>                                        |
| Engineering Data                            | <a href="#">STEP</a>                                                            |
| User Documentation                          | <a href="#">Instruction sheet</a>                                               |

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# Drawings

## Connection diagram



Power supply via the rail bus