

**ACT20M-CI-CO-ILP-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[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**

|            |                                                                                               |
|------------|-----------------------------------------------------------------------------------------------|
| Version    | Passive isolator, Input current loop feed, 1-channel, Input : 0(4)-20 mA, Output : 0(4)-20 mA |
| Order No.  | <a href="#">1176070000</a>                                                                    |
| Type       | ACT20M-CI-CO-ILP-S                                                                            |
| GTIN (EAN) | 4032248970148                                                                                 |
| Qty.       | 1 pc(s).                                                                                      |

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 114.3 mm | Depth (inches)  | 4.5 inch   |
| Height     | 112.5 mm | Height (inches) | 4.429 inch |
| Width      | 6.1 mm   | Width (inches)  | 0.24 inch  |
| Net weight | 80 g     |                 |            |

**Temperatures**

|                                   |                            |                       |                                                |
|-----------------------------------|----------------------------|-----------------------|------------------------------------------------|
| Storage temperature               | -40 °C...85 °C             | Operating temperature | -25 °C...70 °C                                 |
| Humidity at operating temperature | 0...95 % (no condensation) | Humidity              | 40 °C / 93 % rel. humidity,<br>no condensation |

**Probability of failure**

|                                  |      |      |       |
|----------------------------------|------|------|-------|
| SIL in compliance with IEC 61508 | None | MTBF | 699 a |
|----------------------------------|------|------|-------|

**Input**

|                             |                                          |               |                |
|-----------------------------|------------------------------------------|---------------|----------------|
| Input current               | 0...20 mA, 4...20mA                      | Input voltage | > 3 V @ 20 mA  |
| Number of inputs            | 1                                        | Sensor        | Current source |
| Voltage drop, current input | 1.25 V + 0.015 V <sub>out</sub><br>@25°C |               |                |

**Output**

|                           |                                              |                        |                      |
|---------------------------|----------------------------------------------|------------------------|----------------------|
| Cut-off frequency (-3 dB) | 100 Hz                                       | Load impedance current | ≤ 600 Ω, @ max 23mA  |
| Number of outputs         | 1                                            | Output current         | 0...20 mA, 4...20 mA |
| Type                      | active, connected control<br>must be passive |                        |                      |

**General data**

|                    |                                      |                         |               |
|--------------------|--------------------------------------|-------------------------|---------------|
| Accuracy           | <0.1 % of measuring range            | Configuration           | none          |
| Galvanic isolation | 2-way isolator                       | Power consumption       | 30 mW         |
| Protection degree  | IP20                                 | Rail                    | TS 35         |
| Step response time | ≤ 5 ms                               | Temperature coefficient | ≤ 0.01 % / °C |
| Voltage supply     | Loop powered, via 4...20<br>mA input |                         |               |

**Insulation coordination**

|                    |                                |                        |                |
|--------------------|--------------------------------|------------------------|----------------|
| EMC standards      | EN 61326-1                     | Galvanic isolation     | 2-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             |

**Data for Ex applications (ATEX)**

|                       |                                          |         |                        |
|-----------------------|------------------------------------------|---------|------------------------|
| Installation location | Device installed in safe<br>area, zone 2 | Marking | II 3 G Ex nA IIC T4 Gc |
|-----------------------|------------------------------------------|---------|------------------------|

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**Technical data****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              |

**EMC conformity and approvals**

|               |            |           |             |
|---------------|------------|-----------|-------------|
| EMC standards | EN 61326-1 | Standards | IEC 61010-1 |
|---------------|------------|-----------|-------------|

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002653    | ETIM 7.0    | EC002653    |
| ETIM 8.0    | EC002653    | ETIM 9.0    | EC002653    |
| ECLASS 9.0  | 27-21-01-20 | ECLASS 9.1  | 27-21-01-20 |
| ECLASS 10.0 | 27-21-01-20 | ECLASS 11.0 | 27-21-01-20 |
| ECLASS 12.0 | 27-21-01-20 | ECLASS 13.0 | 27-21-01-20 |
| ECLASS 14.0 | 27-21-01-20 |             |             |

**Tender specification sheets**

|                                          |                     |                                                                                                                                                                                                                |
|------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long specification                       | Short specification | <b>Standard signal passive isolator</b><br><b>1-channel signal passive isolator in 6.1 mm width with input current loop feed, for transmitting and isolating analogue DC current signals from 0/4 to 20 mA</b> |
| <b>Type</b><br><b>ACT20M-CI-CO-ILP-S</b> |                     |                                                                                                                                                                                                                |

**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 |

**Important note**

|                     |                                                                                                                                                                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product information | The ACT20M-CI-CO-ILP-S passive isolator isolates standard analogue current signals. An analogue input current signal is linearly converted to an analogue output current signal and is galvanically isolated. Power is supplied through the input measuring circuit (input loop-powered). |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate no. (cULus) | E337701    |

**Downloads**

|                                             |                                                                                                                                                                                                                                            |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DNV-GL certificate</a><br><a href="#">FM certificate</a><br><a href="#">IECEXx certificate</a><br><a href="#">ATEX certificate</a><br><a href="#">UL certification for canada</a><br><a href="#">Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                            |
| User Documentation                          | <a href="#">Instruction sheet</a>                                                                                                                                                                                                          |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                   |
| Brochures                                   |                                                                                                                                                                                                                                            |

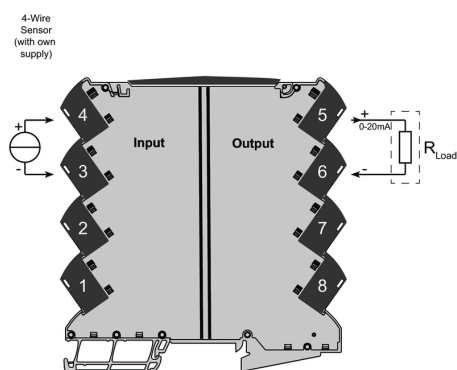
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## Drawings

### Connection diagram



### Dimensional drawing

