

**ACT20P**  
**ACT20P-PRO DCDC II-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

D-32758 Detmold

Germany

Fon: +49 5231 14-0

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www.weidmueller.com

**ACT20P: The flexible solution**

- Precise and highly functional signal converters
- Simple configuration via display (Pro DCDC II), FDT/DTM software or DIP switch
- Release levers simplify handling
- More space in the control cabinet, from 12.5 mm wide for two channels

**General ordering data**

|            |                                                                                                           |
|------------|-----------------------------------------------------------------------------------------------------------|
| Type       | ACT20P-PRO DCDC II-S                                                                                      |
| Order No.  | <a href="#">1481970000</a>                                                                                |
| Version    | ACT20P, Signal converter/insulator, Signal converter/isolator, All-purpose, 24...230 V AC/DC power supply |
| GTIN (EAN) | 4050118291032                                                                                             |
| Qty.       | 1 pc(s).                                                                                                  |

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

|        |          |                 |            |
|--------|----------|-----------------|------------|
| Width  | 12.5 mm  | Width (inches)  | 0.492 inch |
| Height | 117.2 mm | Height (inches) | 4.614 inch |
| Depth  | 113.7 mm | Depth (inches)  | 4.476 inch |
| Weight | 130 g    | Net weight      | 130 g      |

**Temperatures**

|                             |                |                             |                |
|-----------------------------|----------------|-----------------------------|----------------|
| 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 | Storage temperature         | -40 °C...85 °C |

**Probability of failure**

|      |          |
|------|----------|
| MTBF | 76 Years |
|------|----------|

**Input**

|                           |                                                             |               |                                               |
|---------------------------|-------------------------------------------------------------|---------------|-----------------------------------------------|
| Number of inputs          | 1                                                           | Input voltage | configurable, $\pm 20$ mV...<br>$\pm 300$ V   |
| Input resistance, voltage | approx. 1 M $\Omega$                                        | Input current | configurable, $\pm 0.1$ mA... $\pm$<br>100 mA |
| Input resistance, current | < 5 mA: approx. 100 $\Omega$ ; >5<br>mA: approx. 5 $\Omega$ |               |                                               |

**Output**

|                           |                             |                        |                              |
|---------------------------|-----------------------------|------------------------|------------------------------|
| Output voltage, note      | adjustable, 0... $\pm 10$ V | Output current         | adjustable, 0... $\pm 20$ mA |
| Cut-off frequency (-3 dB) | > 10 kHz/ < 10 Hz           | load impedance voltage | $\geq 1$ k $\Omega$          |
| load impedance current    | $\leq 600$ $\Omega$         | Offset voltage         | < 10 mV                      |
| Offset current            | 20 $\mu$ A                  | Status indicator       | Green LED                    |

**Display**

|      |                                               |               |                    |
|------|-----------------------------------------------|---------------|--------------------|
| Type | Dot-matrix display with<br>ticker text, green | Display value | Configuration data |
|------|-----------------------------------------------|---------------|--------------------|

**General data**

|                    |                                                                       |                         |                                                |
|--------------------|-----------------------------------------------------------------------|-------------------------|------------------------------------------------|
| Accuracy           | < 0.05 % of measuring<br>range                                        | Configuration           | DIP switch, or via display<br>and push-buttons |
| Galvanic isolation | 3-way isolator, between<br>input/output/supply                        | Mounting rail           | TS 35                                          |
| Power consumption  | $\leq 2.3$ W                                                          | Step response time      | $\leq 50$ $\mu$ s                              |
| Supply voltage     | 24...230 V DC $\pm 20$ %,<br>24...230 V AC $\pm 10$ % @<br>48...62 Hz | Temperature coefficient | $\leq 0.01\%$ des Messbereichs/<br>°C          |

**Insulation coordination**

|                    |                                                     |                           |                       |
|--------------------|-----------------------------------------------------|---------------------------|-----------------------|
| Galvanic isolation | 3-way isolator, between<br>input/output/supply      | Impulse withstand voltage | 5 kV (1.2/50 $\mu$ s) |
| Insulation voltage | 4 kV <sub>eff</sub> , input/output/<br>power supply | Pollution severity        | 2                     |
| Rated voltage      | 600 V                                               | Surge voltage category    | II                    |

# ACT20P

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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              |

### Ratings IECEx/ATEX/cUL

|                        |                  |
|------------------------|------------------|
| Certificate No. (ATEX) | DEMKO15ATEX1397X |
|------------------------|------------------|

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001774    | ETIM 5.0   | EC002653    |
| ETIM 6.0   | EC002653    | eClass 6.2 | 27-21-01-20 |
| eClass 7.1 | 27-21-01-20 | eClass 8.1 | 27-21-01-20 |
| eClass 9.0 | 27-21-01-20 | eClass 9.1 | 27-21-01-20 |

### Product information

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product information | <p>The universally configurable DC isolating amplifier ACT20P-PRO DCDC II isolates and converts analogue signals. An analogue input signal (current or voltage) is linearly converted into an analogue output signal (current or voltage) and galvanically isolated. The power supply is galvanically isolated from the input and output (3-way isolation).</p> <p>Properties</p> <ul style="list-style-type: none"> <li>• universal wide-range voltage supply</li> <li>• universally configurable via DIP switch or via the LED display using control buttons</li> <li>• Active or passive signal output</li> <li>• Operating status display on a front panel LED</li> <li>• Galvanic 3-way isolation between input, output and supply.</li> </ul> |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Approvals

Approvals



|           |         |
|-----------|---------|
| Approvals | CULUS;  |
| ROHS      | Conform |

### Downloads

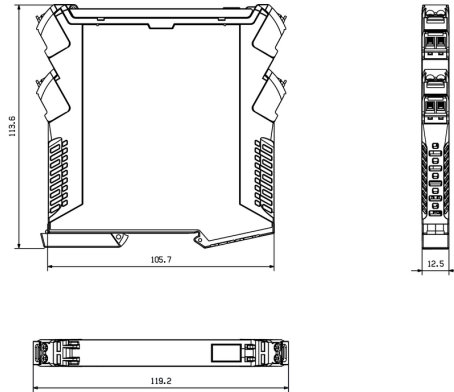
|                                             |                                                                                                                          |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a><br><a href="#">UL file number</a><br><a href="#">DNV German Lloyd approval</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.1 ELECTR 16/17 EN</a>                                                                                  |
| Engineering Data                            | <a href="#">EPLAN, WSCAD, Zuken E3.S</a>                                                                                 |
| Software                                    | <a href="#">DIP switch configuration tool</a>                                                                            |
| User Documentation                          | <a href="#">instruction sheet</a>                                                                                        |

## ACT20P ACT20P-PRO DCDC II-S

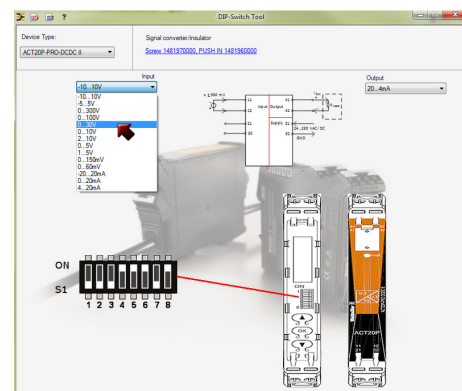
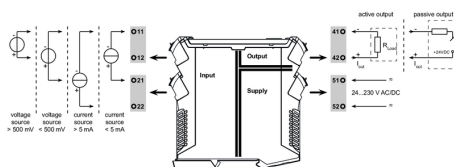
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## Drawings

### Dimensioned drawing



### Wiring



example for DIP switch setting (with ACT20 tool)