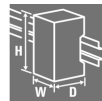


**ACT20P-PRO-RTCI-AO-DO-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****ACT20P: The flexible solution**

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

**General ordering data**

|            |                                                                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version    | Temperature converter, Limit value monitoring, Input : Temperature, Resistance, Potentiometer, Output : I/U universal, Transistor (Alarm), Temperature converter, Limit value monitoring |
| Order No.  | <a href="#">2448100000</a>                                                                                                                                                               |
| Type       | ACT20P-PRO-RTCI-AO-DO-S                                                                                                                                                                  |
| GTIN (EAN) | 4050118462241                                                                                                                                                                            |
| Qty.       | 1 pc(s).                                                                                                                                                                                 |

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## Technical data

## Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 113.7 mm | Depth (inches)  | 4.476 inch |
| Height     | 119.2 mm | Height (inches) | 4.693 inch |
| Width      | 12.5 mm  | Width (inches)  | 0.492 inch |
| Net weight | 194 g    |                 |            |

## Temperatures

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

## Input

|                         |                                             |                        |                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|---------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input voltage           | 0...300 mV                                  | Note, technical data 1 | see details in instruction sheet                                                                                                                                                                                                                                                                                                                                                               |
| Number of inputs        | 1                                           | Potentiometer          | 500 Ω...120 kΩ                                                                                                                                                                                                                                                                                                                                                                                 |
| Resistance              |                                             | Sensor                 | RTD: PT100, PT200, PT500, PT1000, Ni50, Ni100, Ni120, Ni1000, Cu10, Cu25, Cu50, Cu100, RTD (2-wire): KTY83/110, KTY83/120, KTY83/150, KTY83/121, KTY83/122, KTY83/210, KTY83/220, KTY83/221, KTY83/250, KTY82/110, KTY82/120, KTY82/150, KTY82/121, KTY82/122, KTY82/210, KTY82/220, KTY82/221, KTY82/250, KTY84/130, KTY16, KTY19, ST13, ST20, Thermocouples: B, E, J, K, L, N, R, S, T, U, L |
| Temperature input range | 0...15 kΩ<br>adjustable from -200...+850 °C |                        |                                                                                                                                                                                                                                                                                                                                                                                                |

## Output (digital)

|                          |                                                                                 |                           |                                           |
|--------------------------|---------------------------------------------------------------------------------|---------------------------|-------------------------------------------|
| Alarm function           | configurable, Top and bottom limit values, window range, Short circuit at input | Hysteresis                | 1...20 %                                  |
| Max. switching frequency | ≤ 5 kHz                                                                         | Number of digital outputs | 1                                         |
| Rated switching current  | 100 mA                                                                          | Rated switching voltage   | 24 VDC ±30%                               |
| Switch-on delay          | 0...180 s, 50 ms ... 7.5 s                                                      | Type                      | NPN-Transistor, Switching frequency 5 kHz |

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## Technical data

### Output (analogue)

|                                                                                                   |                         |                                                                                                     |
|---------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------|
| Load resistance current                                                                           | Load resistance voltage | > 1 k $\Omega$ (60 VAC <U <sub>in</sub> <230 VAC), > 5 k $\Omega$ (24 VAC <U <sub>in</sub> <60 VAC) |
| $\leq 600 \Omega$                                                                                 | Output current          | configurable, 0(4)...20 mA, -20...+20 mA, $\pm 10$ mA, upscale (23 mA), downscale (3,5 mA)          |
| Number of analogue outputs                                                                        | Signal output           | direct or inverted                                                                                  |
| 1                                                                                                 | Type (analogue output)  | Voltage and current output (configurable), Active/passive                                           |
| Output voltage                                                                                    |                         |                                                                                                     |
| configurable, 0(1)...5 V, 0(2)...10 V, downscale (0 V), upscale (11 V), -5...+5 V, -10...+10 V    |                         |                                                                                                     |
| Transmit function                                                                                 |                         |                                                                                                     |
| linear, $\sqrt{X}$ , $X^1$ , $X^{1.5}$ , $X^2$ , $X^{2.5}$ , 1-X, -5...+5 % of output span (TRIM) |                         |                                                                                                     |

### Display

|                                            |               |                                                                 |
|--------------------------------------------|---------------|-----------------------------------------------------------------|
| Display range                              | Display value | Configuration data and process data (input/output) in operation |
| -9999...9999                               |               |                                                                 |
| Type                                       |               |                                                                 |
| Dot-matrix display with ticker text, green |               |                                                                 |

### General data

|                    |                                                     |                         |                               |
|--------------------|-----------------------------------------------------|-------------------------|-------------------------------|
| Accuracy           | < $\pm 0.1$ % of span, $\leq 0.2$ °C (PT100)        | Configuration           | with push-buttons and display |
| Galvanic isolation | 4-way isolator, between input/output/supply         | Included in delivery    | Transducer, Instruction sheet |
| Long-term drift    | 0.1 % / 10.000 h                                    | Power consumption       | $\leq 2.6$ W                  |
| Protection degree  | IP20                                                | Rail                    | TS 35                         |
| Step response time | 10 ms, 2- / 4- wire: 320 ms, 3- wire / Poti: 640 ms | Temperature coefficient | $\leq 0.01$ % / °C            |
| Voltage supply     | 24...230 V DC $\pm 15$ %, 110 - 230 V AC / 60-50 Hz |                         |                               |

### Insulation coordination

|                           |                    |                                             |
|---------------------------|--------------------|---------------------------------------------|
| EMC standards             | Galvanic isolation | 4-way isolator, between input/output/supply |
| EN 61326-1                | Insulation voltage | 4 kV <sub>eff</sub> / 1 min.                |
| Impulse withstand voltage | Rated voltage      | 600 V                                       |
| 5 kV (1.2/50 $\mu$ s)     |                    |                                             |
| Pollution severity        |                    |                                             |
| 2                         |                    |                                             |
| Surge voltage category    |                    |                                             |
| II                        |                    |                                             |

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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 26              | Wire connection cross section AWG, max.                                                 | AWG 12              |
| Wire cross-section, solid, min.                                                         | 0.2 mm <sup>2</sup> | Wire cross-section, solid, max.                                                         | 2.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, min.                                    | 0.2 mm <sup>2</sup> | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.2 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm <sup>2</sup> |                                                                                         |                     |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002919    | ETIM 7.0    | EC002919    |
| ETIM 8.0    | EC002919    | ETIM 9.0    | EC002919    |
| ECLASS 9.0  | 27-21-01-29 | ECLASS 9.1  | 27-21-01-29 |
| ECLASS 10.0 | 27-21-01-29 | ECLASS 11.0 | 27-21-01-29 |
| ECLASS 12.0 | 27-21-01-29 | ECLASS 13.0 | 27-21-01-29 |

**Environmental Product Compliance**

|            |                                      |
|------------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1                       |
| SCIP       | 2f6dd957-421a-46db-a0c2-cf1609156924 |

**Important note**

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product information | <p>The universal, configurable resistance measuring transducer ACT20P-PRO-RTCI-AO-DOS converts 2- / 3- / 4-wire ohmic resistance and potentiometers into an active or passive standard current signal or an active voltage signal. For set point Limit Monitoring the device is equipped with an digital NPN Output. The universal power supply can be powered up from 24Vuc...230Vuc. The device can be configured via the display.</p> <p>Features</p> <ul style="list-style-type: none"> <li>• universal wide range supply</li> <li>• universal configurability, LED- Display by touch key</li> <li>• Active or passive signal output</li> <li>• Digital NPN transistor output</li> <li>• Operating status display via frontside LED</li> <li>• Galvanic 4-way isolation between Input, analogue, digital output and supply</li> </ul> |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Approvals**

Approvals



|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

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## Technical data

### Downloads

|                                             |                                              |
|---------------------------------------------|----------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">UL certification</a>             |
|                                             | <a href="#">DNV certification</a>            |
|                                             | <a href="#">Bureau Veritas certification</a> |
|                                             | <a href="#">IECEX certification</a>          |
|                                             | <a href="#">Declaration of Conformity</a>    |
| Engineering Data                            | <a href="#">CAD data – STEP</a>              |
| User Documentation                          | <a href="#">Instruction sheet</a>            |
|                                             | <a href="#">Configuration manual</a>         |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>     |

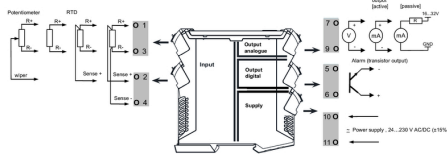
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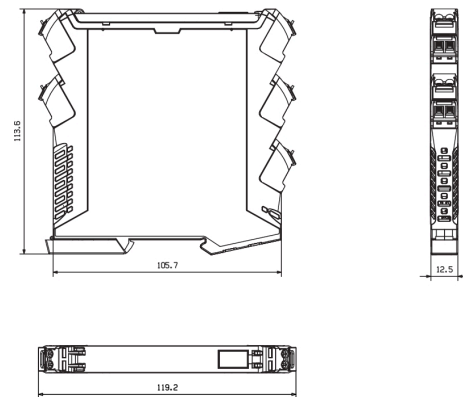
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## Drawings

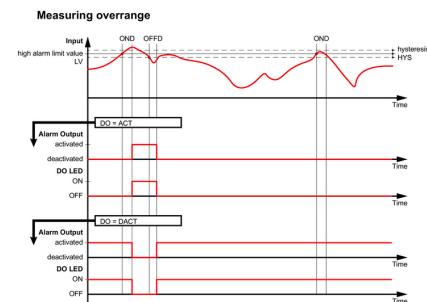
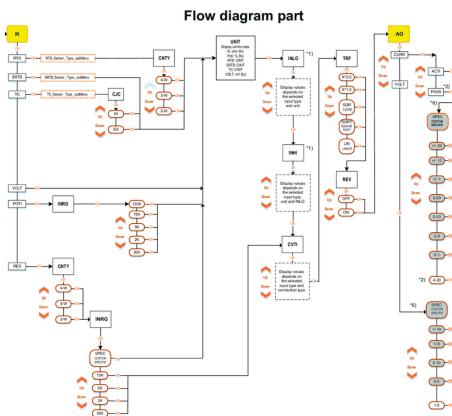
### Connection diagram



### Dimensioned drawing



### Dimensioned drawing



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**Drawings**