

## ACT20P ACT20P-UI-2RCO-DC-S

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
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### 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-UI-2RCO-DC-S  |
| Order No.  | <a href="#">7940045760</a>   |
| Version    | Limit value monitoring, Signal converter/isolator, All-purpose, *UNDEFINED TEXT* |
| GTIN (EAN) | 4050118278507  |
| Qty.       | 1 Stück  |

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## Technische Daten

### Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 22,5 mm  | Width (inches)  | 0,886 inch |
| Height     | 117,2 mm | Height (inches) | 4,614 inch |
| Depth      | 113,6 mm | Depth (inches)  | 4,472 inch |
| Net weight | 121 g    |                 |            |

### Temperatures

|                     |                             |                       |                |
|---------------------|-----------------------------|-----------------------|----------------|
| Humidity            | 10...90 % (no condensation) | Operating temperature | -20 °C...70 °C |
| Storage temperature | -20 °C...70 °C              |                       |                |

### Input

|                         |  |  |  |
|-------------------------|--|--|--|
| Number of inputs        | 1  | Sensor                                   | Thermocouples: B, E, J, K, L, N, R, S, T, U, PT100/2-/3-wire, PT200, PT1000, N120, Cu 10, Potentiometer: 1.2 k $\Omega$ - 500 k $\Omega$ , Resistance: 0 - 1.5 k $\Omega$ , Resistance: 0 - 12 k $\Omega$ , Resistance: 0 - 750 $\Omega$ |
| Sensor supply           | 0.1 mA / 0.05 mA (depending on measuring range) @ RTD cable  | Influence of the sensor cable resistance | 5 $\Omega$ @ RTD- Kabel  |
| Input voltage           | configurable, $\pm 150$ mV DC, $\pm 600$ mV DC, $\pm 30$ V DC, $\pm 300$ V DC                              | Input resistance, voltage                | 2 M $\Omega$ , > 10 M $\Omega$   |
| Input current           | configurable, $\pm 25$ mA DC, $\pm 5$ A DC   | Input resistance, current                | 40 $\Omega$  |
| Input measurement range | configurable, Thermocouple type J -100...+1200°C, Thermocouple type K -200...+1370°C, PT100 -200...+850 °C | Cable-length compensation                | < $\pm 0.002$ $\Omega$ per cable resistance $\Omega$   |
| Potentiometer           | 1.2...500 k $\Omega$   |  |  |

### General data

|                 |   |                                  |   |
|-----------------|---|----------------------------------|---|
| Accuracy        | < 0.1 % of measuring range  | Cold-junction compensation error | $\pm 2.0^\circ\text{C}$ @ -20° C - 70°C             |
| Configuration   | With FDT/DTM software, or via 7-segment display, push-buttons and rotary encoder on the device itself | Galvanic isolation               | 4-way isolator, Input to supply / Alarm 1 / Alarm 2 |
| Mounting rail   | TS 35   | Power consumption                | $\leq 3.5$ W  |
| Repeat accuracy | $\pm 0.05$ % of upper measurement range limit   | Step response time               | 450 ms  |
| Supply voltage  | 9...60 V DC   | Temperature coefficient          | < 0.02 °C of measuring range / °C                   |

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### Insulation coordination

|                           |                  |                        |   |
|---------------------------|------------------|------------------------|---|
| EMC standards             | EN 61326-1       | Galvanic isolation     | 4-way isolator, Input to supply / Alarm 1 / Alarm 2 |
| Impulse withstand voltage | 4 kV (1.2/50 µs) | Insulation voltage     | 4 kV (input / output)                               |
| Pollution severity        | 2                | Rated voltage          | 300 V <sub>eff</sub>                                |
| Standards                 | DIN EN 61010-1   | Surge voltage category | III   |
| Test voltage              | 300 V            |                        |   |

### Output (digital)

|                         |  |                            |       |
|-------------------------|--|----------------------------|-------|
| Alarm function          | configurable, Top and bottom limit values, window range, Hysteresis 2°C adjustable, Alarm mode: delay, switch on or switch on/off, Alarm delay: 0...10 s | Number of digital outputs  | 2     |
| Type                    | 2 CO contacts, normal / inverse adjustment   | Max. switching voltage, AC | 240 V |
| Rated switching current | 200mA @ 110Vdc, 6A @ 24Vdc / 240Vac  |                            |       |

### 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, rated connection, min.  | 0,5 mm <sup>2</sup> | Clamping range, rated connection, max.  | 2,5 mm <sup>2</sup> |
| Wire connection cross section AWG, min. | AWG 30              | Wire connection cross section AWG, max. | AWG 14              |

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC002479    | ETIM 5.0   | EC002653    |
| ETIM 6.0   | EC002654    | 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 | 27-21-01-22 |

### Product information

|                              |  |
|------------------------------|--|
| Product information          | <p>The devices of the ACT20P-UI-2RCO-XX-S family record current, voltage, potentiometer and temperature sensor signals (mA, A, mV, V, potentiometer, RTD and TC). They have two independent relay outputs which emit an alarm when levels exceed or fall below pre-set limits.</p> <p>Properties</p> <ul style="list-style-type: none"> <li>• Configuration and diagnosis with the FDT/DTM software "WI-Manager".</li> <li>• Manual configuration on the device is performed via the LED display by means of operating buttons and rotary encoders.</li> <li>• The dual-channel trip amplifier enables various alarm functions: window alarm, alarm delay, wire break detection, hysteresis and upper / lower limit alarm.</li> <li>• The active or passive signal inputs for RTD, TC, potentiometer, voltage and current are fully galvanically isolated.</li> <li>• Remote diagnosis: reporting of errors (e.g. cable breaks) via status relay.</li> <li>• Operational status and relay status indicated by front panel LEDs.</li> <li>• Galvanic 4-way isolation between input, output and supply.</li> </ul> |
| Descriptive text accessories | CBX200 USB configuration adapter - 8978580000  |

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**Technische Daten****Approvals**

Approvals



ROHS

Conform

**Downloads**Approval/Certificate/Document of  
Conformity[Declaration of Conformity](#)

Brochure/Catalogue

[CAT 4.1 ELECTR 16/17 EN](#)

Engineering Data

[EPLAN, WSCAD](#)

Software

[WI-Manager, DTM-Library for online installation](#)

User Documentation

[instruction sheet](#)

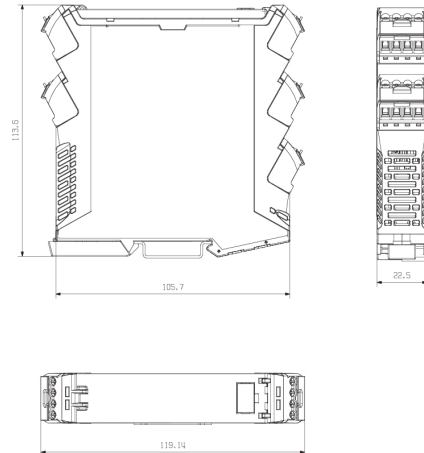
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Zeichnungen



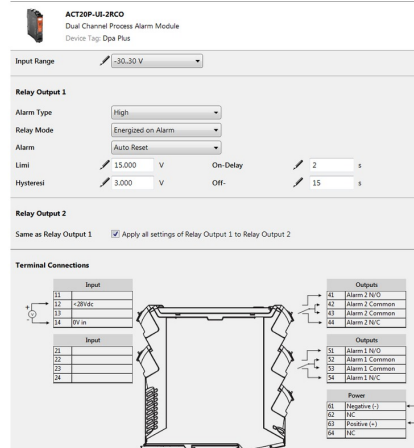
Removable terminals



Dimensioned drawing



Removable terminals



screenshot of configuration with FDT2 / DTM software

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