

**ACT20P-UI-2RCO-DC-P****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****FDT**2**ACT20P: The flexible solution**

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

**General ordering data**

Version	Limit value monitoring, Input : universal U, I, R, 9, Output : 2 x relays, Input: temperature, R, U, I, Relay output, 24 V DC power supply
Order No.	<a href="#">2456840000</a>
Type	ACT20P-UI-2RCO-DC-P
GTIN (EAN)	4050118471779
Qty.	1 pc(s).

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

Depth	113.6 mm	Depth (inches)	4.472 inch
Height	127.1 mm	Height (inches)	5.004 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	228 g		

**Temperatures**

Storage temperature	-20 °C...70 °C	Operating temperature	-20 °C...65 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	10...90 %, no condensation

**Probability of failure**

SIL in compliance with IEC 61508	None	MTBF	180 a
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**Input**

Cable-length compensation	$\leq \pm 0.002 \Omega$ per cable resistance $\Omega$	Influence of the sensor cable resistance	5 $\Omega$ @ RTD- Kabel
Input current	configurable, $\pm 25$ mA DC, $\pm 5$ A DC	Input resistance, current	40 $\Omega$
Input resistance, voltage	2 M $\Omega$ , > 10 M $\Omega$	Input voltage	configurable, $\pm 150$ mV DC, $\pm 600$ mV DC, $\pm 30$ V DC, $\pm 300$ V DC
Number of inputs	1	Potentiometer	1.2...500 k $\Omega$
Resistance	0...10 k $\Omega$ , 0...12 k $\Omega$ , 0...15 k $\Omega$	Sensor	Thermocouples: B, E, J, K, L, N, R, S, T, U, RTD: PT100, PT200, PT1000, Ni120, Cu10, 2-/3-/4-wire
Sensor supply	0.1 mA / 0.05 mA (depending on measuring range) @ RTD cable, 24 V (@ 4-20 mA loop)	Temperature input range	B: +100...+1820 °C, E: -270...+1000 °C, J: (-210...+1200 °C), K: -270...+1372 °C, L: +100...+900 °C, N: (-180...+1300 °C), R: -50...+1768 °C, S: -50...+1768 °C, T: -270...+400 °C, U: -200...+600 °C

**Output**

Number of outputs	2
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**Output (digital)**

Alarm function	configurable, Top and bottom limit values, window range, Alarm delay: 0...99 s, Hysteresis adjustable, auto / manual reset	Max. switching frequency	20 Hz
Max. switching voltage, AC	250 V	Max. switching voltage, DC	110 V
Number of digital outputs	2	Rated switching current	200mA @ 110Vdc, 6A @ 24Vdc / 240Vac
Type	2 CO contacts, normal / inverse adjustment, Switching frequency 20 Hz		

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**Technical data****General data**

Accuracy	<0.1 % of measuring range	Cold-junction compensation error	±2.0°C @ -20°C - 70°C
Configuration	With FDT/DTM software, or via 7-segment display, push-buttons and rotary encoder on the device itself, Requires configuration adapter 8978580000 CBX200 USB	Galvanic isolation	4-way isolator, Input to supply / Alarm 1 / Alarm 2, yes, between input / output / supply
Long-term drift	0.1 % / 10.000 h	Power consumption	≤ 3.5 W, <2 W
Rail	TS 35	Repeat accuracy	± 0.05 % of measuring range final value
Step response time	450 ms	Temperature coefficient	<0.02 °C of measuring range / °C, 350 ppm/K
Voltage supply	9...60 V DC		

**Insulation coordination**

EMC standards	EN 61326-1	Galvanic isolation	4-way isolator, Input to supply / Alarm 1 / Alarm 2, yes, between input / output / supply
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>
Surge voltage category	III	Test voltage	0.3 kV

**Connection data**

Type of connection	PUSH IN	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 14
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, max.	2.5 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	EC002654	ETIM 7.0	EC002654
ETIM 8.0	EC002654	ETIM 9.0	EC002654
ECLASS 9.0	27-21-01-22	ECLASS 9.1	27-21-01-22
ECLASS 10.0	27-21-01-22	ECLASS 11.0	27-21-01-22
ECLASS 12.0	27-21-01-22	ECLASS 13.0	27-21-01-22

**Environmental Product Compliance**

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

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## Technical data

## Important note

## Product information

The devices of the ACT20P-UI-2RCO-XX-x 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.

## Properties

- Configuration and diagnosis with the FDT/DTM software "WI-Manager".
- Manual configuration on the device is performed via the LED display by means of operating buttons and rotary encoders.
- The dual-channel trip amplifier enables various alarm functions: window alarm, alarm delay, wire break detection, hysteresis and upper / lower limit alarm.
- The active or passive signal inputs for RTD, TC, potentiometer, voltage and current are fully galvanically isolated.
- Remote diagnosis: reporting of errors (e.g. cable breaks) via status relay.
- Operational status and relay status indicated by front panel LEDs.
- Galvanic 4-way isolation between input, output and supply.

## Approvals

## Approvals



## Approvals

CULUS;

## ROHS

Conform

## Downloads

## Approval/Certificate/Document of Conformity

[Declaration of Conformity](#)

## Engineering Data

[CAD data – STEP](#)

## Software

[WI-Manager, DTM-Library for online installation](#)[Release notes for Weidmueller FDT-DTM Software version](#)

## User Documentation

[Device description – Instruction sheet](#)[20210120 Security Advisory - WI-Manager affected by MundM Software fdtCONTAINER vulnerability](#)

## Catalogues

[Catalogues in PDF-format](#)

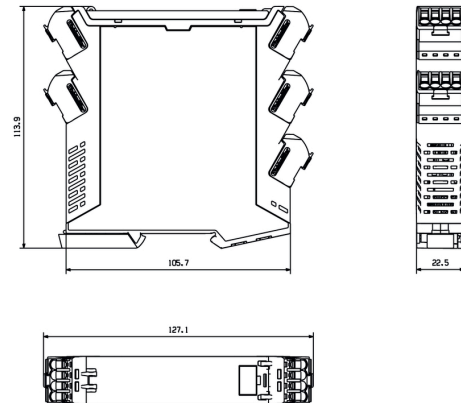
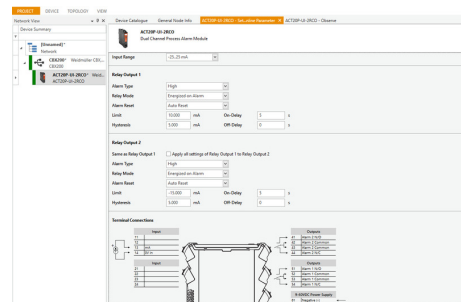
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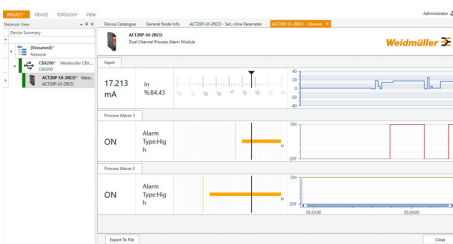
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**Drawings****Dimensioned drawing**

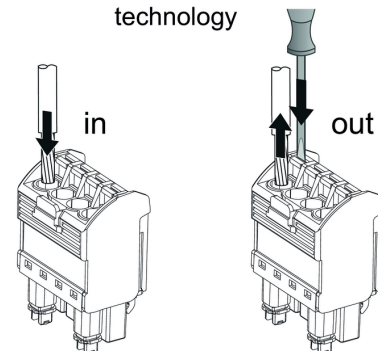
Removable terminals

**Similar to illustration**

screenshot of configuration with FDT2 / DTM software



screenshot of configuration with FDT2 / DTM software

**PUSH IN  
technology**

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**Drawings**