

ACT20P-UI-2RCO-AC-S**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image****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, 90...264 V AC power supply
Order No.	1238910000
Type	ACT20P-UI-2RCO-AC-S
GTIN (EAN)	4050118027075
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Depth	113.6 mm	Depth (inches)	4.472 inch
Height	119.2 mm	Height (inches)	4.693 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	223 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 Ω	Influence of the sensor cable resistance	5 Ω @ RTD- Kabel
Input current	configurable, ± 25 mA DC, ± 5 A DC	Input resistance, current	40 Ω
Input resistance, voltage	2 M Ω , > 10 M Ω	Input voltage	configurable, ± 150 mV DC, ± 600 mV DC, ± 30 V DC, ± 300 V DC
Number of inputs	1	Potentiometer	1.2...500 k Ω
Resistance	0...10 k Ω , 0...12 k Ω , 0...15 k Ω	Sensor	RTD (2,3-wire): Pt100, Pt200, Pt1000, Ni120, Cu10, Thermocouples: B, E, J, K, L, N, R, S, T, U
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	90...264 V AC		

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 _{eff}
Surge voltage category	III	Test voltage	0.3 kV

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 ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

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

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Technical data

Tender specification sheets

Long specification

Universal limit-value monitoring component with relay output and external supply
Universal limit-value monitoring component in 22.5 mm width with external voltage and sensor supply, for monitoring and isolating DC currents +/- 25mA...5 A, DC voltages +/-600 mV... 300 V, 2-/3-/4-wire RTD sensors , resistors, potentiometers and thermocouple signals according to IEC584.
Two relay contacts (CO) are available on the output side.
This component is programmed using FDT/DTM software.
Add-on housing for TS35 rail mounting
Dimensions: L/W/H 119/ 22.5/ 113.6 mm
Screw connection / Nominal cross-section 2.5 mm²
Protection degree: IP 20
Input +/-25 mA...5 A
DC +/- 600 mV...300 V DC

PT100, PT1000, Ni100, Ni1000
Resistance 0...12 kOhm
Potentiometer 0...500 kOhm

Thermocouple types B, E, J, K, L, LR, N, R, S, T, U, W3, W5
Sensor supply 24 V DC
Output 2 x 1 CO (hard gold-plated)
240 V AC/ 24 V DC @ 6 A
Repeat accuracy < 0,05 % v. E.
Step response time < 10...90 %
200 ms
Auxiliary power 300 mVA AC / 120...370 V DC
Power loss approx. 3 W
Operating voltage 240 V AC
Ambient

Short specification

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Technical data**Environmental Product Compliance**

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

Important note

Product information	<p>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.</p> <p>Properties</p> <ul style="list-style-type: none"> • 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.
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Approvals

Approvals



Approvals	CULUS;
ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	Application notes – UL Certification 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	instruction sheet 20210120 Security Advisory - WI-Manager affected by MundM Software fdtCONTAINER vulnerability
Catalogues	Catalogues in PDF-format

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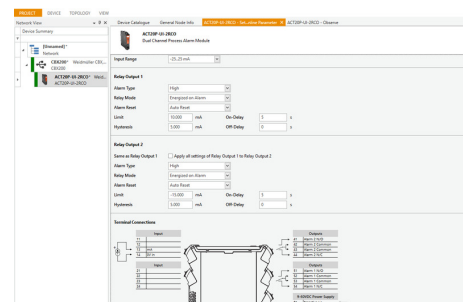
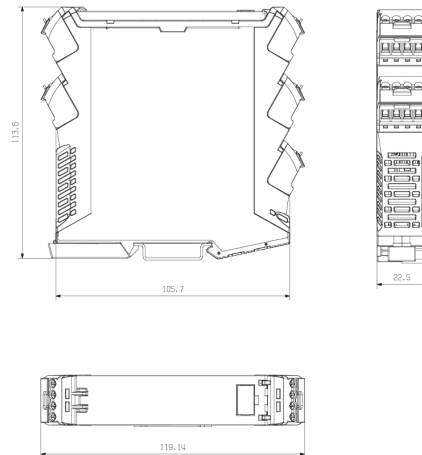
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Drawings

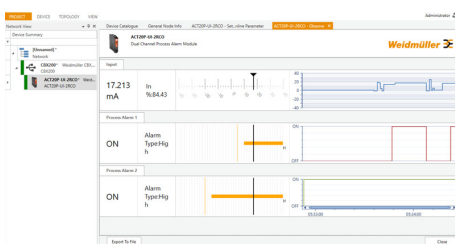
Dimensioned drawing



Removable terminals



screenshot of configuration with FDT2 / DTM software



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