

ACT20P-PRO-RTCI-AO-DO-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	Temperature converter, Limit value monitoring, Input : Temperature, Resistance, Potentiometer, Output : I/U universal, Transistor (Alarm), Temperature converter, Limit value monitoring
Order No.	2448100000
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
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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 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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Output (analogue)

Load resistance current	Load resistance voltage	> 1 k Ω (60 VAC <U _{in} <230 VAC), > 5 k Ω (24 VAC <U _{in} <60 VAC)
$\leq 600 \Omega$	Output current	configurable, 0(4)...20 mA, -20...+20 mA, ± 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	$\leq \pm 0.1$ % of span, ≤ 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	≤ 2.6 W
Rail	TS 35	Step response time	10 ms, 2- / 4- wire: 320 ms, 3- wire / Poti: 640 ms
Temperature coefficient	≤ 0.01 % / °C	Voltage supply	24...230 V DC ± 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 _{eff} / 1 min.
Impulse withstand voltage	Rated voltage	600 V
5 kV (1.2/50 μ s)		
Pollution severity		
2		
Surge voltage category		
II		

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
Wire cross-section, solid, min.	0.2 mm ²	Wire cross-section, solid, max.	2.5 mm ²
Wire connection cross section, finely stranded, min.	0.2 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.2 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²		

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Technical data

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"> • universal wide range supply • universal configurability, LED- Display by touch key • Active or passive signal output • Digital NPN transistor output • Operating status display via frontside LED • Galvanic 4-way isolation between Input, analogue, digital output and supply
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Approvals

Approvals



ROHS	Conform
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Downloads

Approval/Certificate/Document of Conformity	UL certification DNV certification Bureau Veritas certification IECEX certification Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Instruction sheet Configuration manual
Catalogues	Catalogues in PDF-format

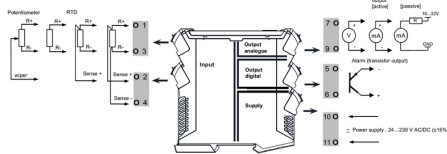
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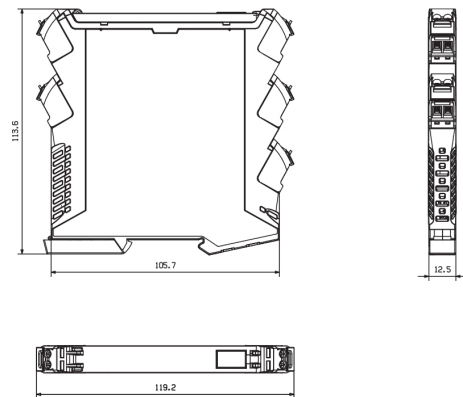
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Drawings

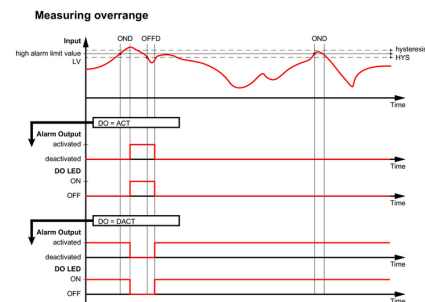
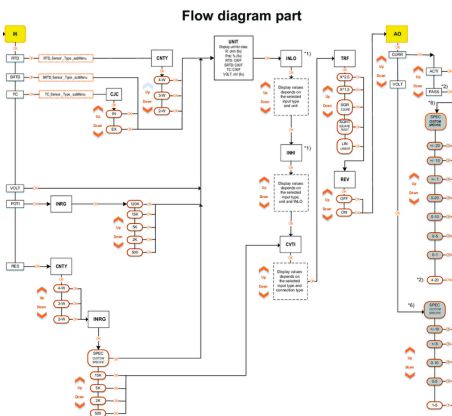
Connection diagram



Dimensioned drawing



Dimensioned drawing



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