

**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
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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 $\Omega$ (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
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		

### 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>		

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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"> <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>
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**Approvals**

Approvals



ROHS	Conform
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**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>

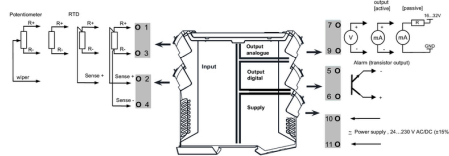
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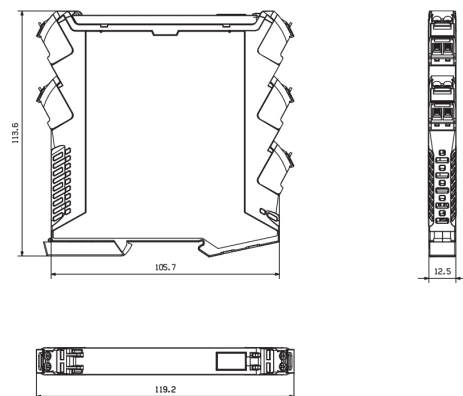
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## Drawings

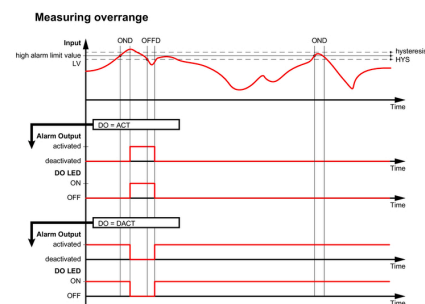
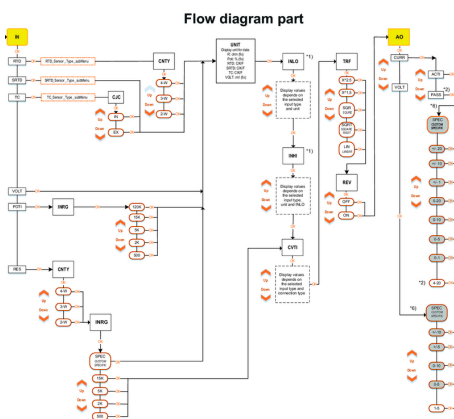
### Connection diagram



### Dimensioned drawing



### Dimensioned drawing



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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Blank**

ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

**For custom printing:** Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

**General ordering data**

Type	ESG 8/13.5/43.3 SAI AU	Version
Order No.	<a href="#">1912130000</a>	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent
GTIN (EAN)	4032248541164	
Qty.	5 pc(s).	

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**General ordering data**

Type	ESG 6.6/11 BHZ 5.00/02	Version
Order No.	<a href="#">1082490000</a>	ESG, Device markers x 11 mm, PA 66, Colour: white
GTIN (EAN)	4032248845330	
Qty.	200 pc(s).	

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