

## ACT20P ACT20P-UI-AO-DO-LP-S

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### Product image



#### 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-AO-DO-LP-S
Order No.	<a href="#">1453210000</a>
Version	ACT20P, Signal converter/insulator, Limit value monitoring, Input: temperature, R, U, I, Output: 4 - 20 mA, Output current loop powered
GTIN (EAN)	4050118259605
Qty.	1 pc(s).

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

Width	12.5 mm	Width (inches)	0.492 inch
Height	119.2 mm	Height (inches)	4.693 inch
Depth	113.6 mm	Depth (inches)	4.472 inch
Net weight	80 g		

**Temperatures**

Humidity	10...90 %, no condensation	Operating temperature, max.	70 °C
Operating temperature, min.	-20 °C	Storage temperature, max.	70 °C
Storage temperature, min.	-20 °C	Operating temperature	-20 °C...70 °C
Ambient temperature	-20 °C...+70 °C	Storage temperature	-20 °C...70 °C

**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
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**Input**

Number of inputs	1	Type	Universal signal isolator / signal amplifier, thermocouple, RTD
Sensor	PT100 / 2-/3-/4-wire, PT1000/2-/3-/4-wire, PT200, N120, Thermocouples: B, E, J, K, L, N, R, S, T, U, Potentiometer	Sensor supply	0.1 mA / 0.05 mA (depending on measuring range) @ RTD cable
Influence of the sensor cable resistance	5 Ω @ RTD- Kabel	Input voltage	configurable, ± 300 V DC (min. measurement range 100 V), 0...300 V AC (min. measurement range 100 V)
Input resistance, voltage	2 MΩ, > 10 MΩ	Input current	configurable, ± 5 A DC (min. measurement range 0.5 A)
Input resistance, current	40 Ω	Input measurement range	PT100 -200...+850 °C, Thermocouple type J -100...+1200°C, Thermocouple type K -200...+1370°C, customization
Cable-length compensation	< ±0.002 Ω per cable resistance Ω	Resistance	0...12 kΩ, 0...1k5 Ω, 0...750 Ω
Potentiometer	1.2...500 kΩ		

**Output**

Type	Output-loop powered	Number of outputs	1
Output signal limit	Harmonics: <10 mV (peak to peak)	Output current	4...20 mA, 20...4 mA, Current loop
cold junction compensation	±1°C (-20°C...60°C)	load impedance current	typ. 700 Ω @ 24 V DC
Supply voltage	via output current loop		

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

Accuracy	< 0.1 % of measuring range	Cold-junction compensation error	±1.0°C @ -20° C - 65°C
Configuration	With FDT/DTM software	Galvanic isolation	2-way isolator, between input/output
Rail	TS 35	Step response time	450 ms
Temperature coefficient	< 0.02 °C of measuring range / °C	Voltage supply	Output loop powered, (10...45 V)

**Insulation coordination**

Galvanic isolation	2-way isolator, between input/output	Impulse withstand voltage	4 kV (1.2/50 µs)
Insulation voltage	3.51 kV between input and output	Pollution severity	2
Rated voltage	300 V <sub>eff</sub>	Surge voltage category	III

**Output (digital)**

Type	Transistor, open collector	Rated switching current	20 mA
Rated switching voltage	≤ 30 V DC		

**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 30	Wire connection cross section AWG, max.	AWG 14

**Classifications**

ETIM 5.0	EC002653	ETIM 6.0	EC002653
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	27-21-01-90		

**Product information**

Product information	<p>The ACT20P-UI-AO-DO-LP-X converts and isolates current, voltage, potentiometer and temperature sensor signals (mA, A, mV, V, potentiometer, RTD and TC). The transmit function between the input and output can be set via the configuration program either to predefined functions (x0.5, x, x2) or via a freely definable function table. The device is powered via the output current loop.</p> <p>Features</p> <ul style="list-style-type: none"> <li>• Configuration and monitoring are performed via FDT/DTM-Software „WI-Manager“.</li> <li>• The active or passive signal inputs for RTD, TC, potentiometer, mV, V, mA and A are completely electrically isolated.</li> <li>• The TC signal input has internal cold-junction compensation.</li> <li>• Alarm output (for example, for limit monitoring, sensor error detection and more)</li> <li>• 3-way galvanic isolation between input, output/supply and alarm output.</li> </ul>
Descriptive text ordering data	CBX200 USB configuration adapter - 8978580000

**Data sheet****ACT20P**  
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Approvals



Approvals	CULUS;
ROHS	Conform

**Downloads**

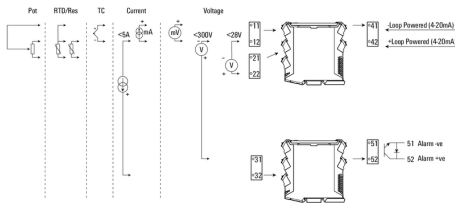
Approval/Certificate/Document of Conformity	<a href="#">Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.1 ELECTR 16/17 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken E3.S</a>
Engineering Data	<a href="#">STEP</a>
Software	<a href="#">WI-Manager, DTM-Library for online installation V.1.2.0</a>
User Documentation	<a href="#">Instruction sheet</a>

**ACT20P  
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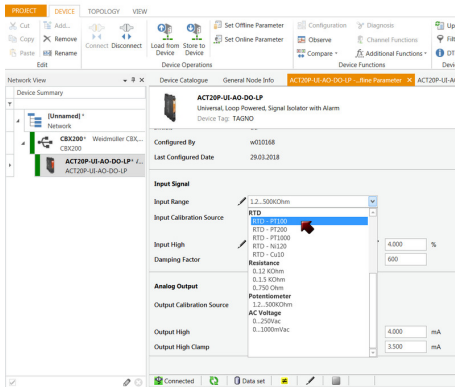
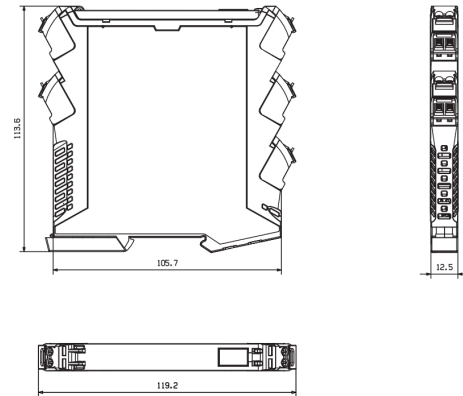
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**Drawings**

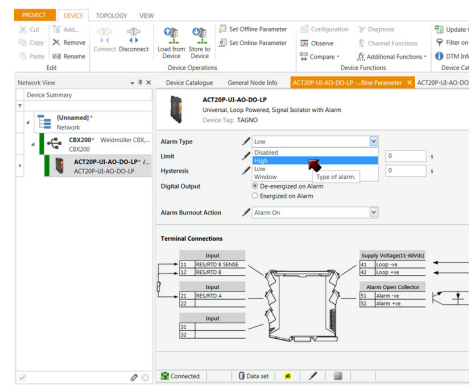
**Connection diagram**



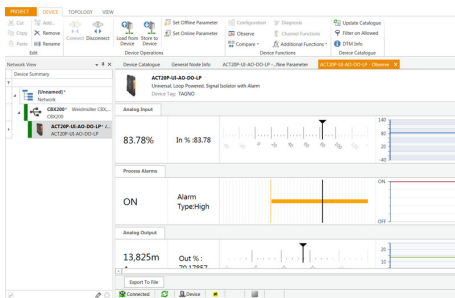
**Dimensioned drawing**



screenshot of configuration with FDT2 / DTM software



screenshot of configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software"

screenshot, configuration of alarm output (limit value) as example