

ACT20P

ACT20P-UI-AO-DO-LP-S

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

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Germany

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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.	1453210000
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

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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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
Mounting rail	TS 35	Step response time	450 ms
Supply voltage	Output loop powered, (10...45 V)	Temperature coefficient	< 0.02 °C of measuring range / °C

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 _{eff}	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 ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²
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

Descriptive text ordering data	CBX200 USB configuration adapter - 8978580000
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Approvals

Approvals



Approvals	CULUS;
ROHS	Conform

Data sheet**ACT20P
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Technical data**Downloads**

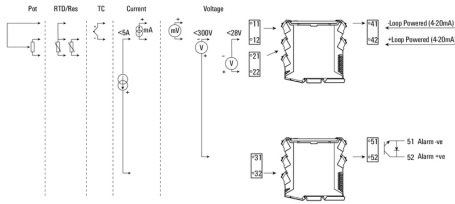
Approval/Certificate/Document of Conformity	Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
Software	WI-Manager, DTM-Library for online installation
User Documentation	Instruction sheet

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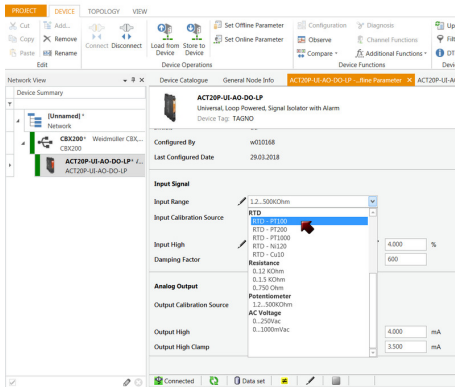
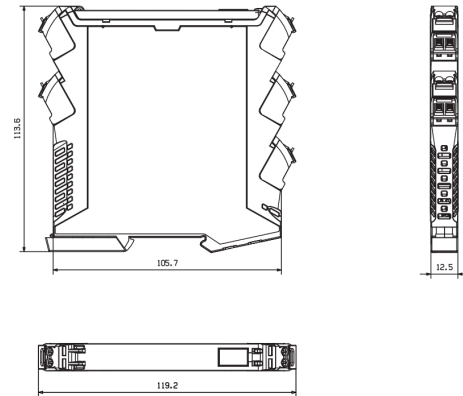
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Drawings

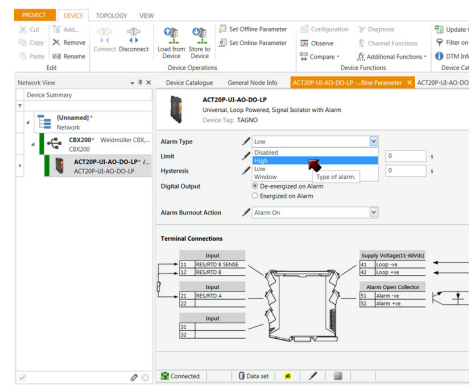
Connection diagram



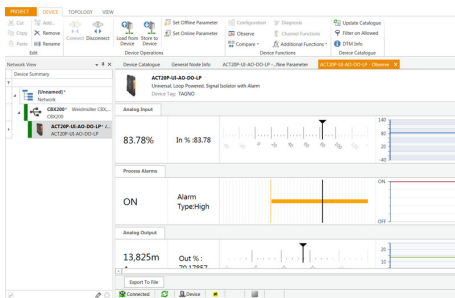
Dimensioned drawing



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