

ACT20P-UI-AO-DO-LP-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 | Signal converter/insulator, Limit value monitoring, Input : universal U, I, R, θ , Output : 4-20 mA, (loop powered), Transistor (Alarm) |
| Order No. | 1453210000 |
| Type | ACT20P-UI-AO-DO-LP-S |
| GTIN (EAN) | 4050118259605 |
| Qty. | 1 pc(s). |

Creation date January 25, 2022 12:40:49 AM CET

Catalogue status 14.01.2022 / We reserve the right to make technical changes.

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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 | 12.5 mm | Width (inches) | 0.492 inch |
| Net weight | 157 g | | |

Temperatures

| | | | |
|---------------------|----------------------------|-----------------------|----------------|
| Storage temperature | -20 °C...70 °C | Operating temperature | -20 °C...70 °C |
| Humidity | 10...90 %, no condensation | | |

Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Input

| | | | |
|---------------------------|---|--|--|
| Cable-length compensation | < ±0.002 Ω per cable resistance Ω | Influence of the sensor cable resistance | 5 Ω @ RTD- Kabel |
| Input current | configurable, ± 5 A DC (min. measurement range 0.5 A) | Input resistance, current | 40 Ω |
| Input resistance, voltage | | Input voltage | configurable, -150...+150 mV DC (min. measurement range 15 mV), -600...+600 mV DC (min. measurement range 50 mV), ± 12 V DC (min. measurement range 1 V), ± 28 V DC (min. measurement range 2 V), ± 300 V DC (min. measurement range 100 V), 0...1 V AC (min. measurement range 300 mV), 0...250 V AC (min. measurement range 100 V) |
| Number of inputs | 1 | Potentiometer | 1.2...500 kΩ |
| Resistance | | Sensor | PT100 (2-/3- wire), PT1000 (2-/3- wire), PT200, N120, Cu 10, Thermocouples: B, E, J, K, L, N, R, S, T, U |
| Sensor supply | 0...750 Ω, 0...1.5 kΩ, 0...12 kΩ | Temperature input range | CU10: -100...+260 °C, Ni120: -80 °C...+320 °C, PT100 / 200 / 1000: -200 °C...+850 °C, B: +100...+1820 °C, E: -270...+1000 °C, J: -270...+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 |
| Type | 0.1 mA / 0.05 mA (depending on measuring range) @ RTD cable | | |
| | Universal signal isolator / signal amplifier, thermocouple, RTD | | |

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Output

| | |
|------|--|
| Type | passive, connected control must be active |
|------|--|

Output (digital)

| | | | |
|---------------------------|--|-------------------------|----------------------------|
| Alarm function | configurable, Top and bottom limit values, window range, Alarm delay: 0...99 s | Hysteresis | ≥ 0.1 % of FS |
| Number of digital outputs | 1 | Rated switching current | 20 mA |
| Rated switching voltage | ≤ 30 V DC | Type | Transistor, open collector |

Output (analogue)

| | | | |
|----------------------------|--------------------|----------------|--------------------------|
| Number of analogue outputs | 1 | Output current | 4...20 mA (current loop) |
| Signal output | direct or inverted | | |

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 | Type of connection | Screw connection |
| 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 _{eff} | Surge voltage category | III |

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 | EC002653 | ETIM 7.0 | EC002653 |
| ETIM 8.0 | EC002653 | ECLASS 9.0 | 27-21-01-20 |
| ECLASS 9.1 | 27-21-01-90 | ECLASS 10.0 | 27-21-01-20 |
| ECLASS 11.0 | 27-21-01-20 | | |

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Technical data**Important note**

Product information

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.

Features

- Configuration and monitoring are performed via FDT/DTM-Software „WI-Manager“.
- The active or passive signal inputs for RTD, TC, potentiometer, mV, V, mA and A are completely electrically isolated.
- The TC signal input has internal cold-junction compensation.
- Alarm output (for example, for limit monitoring, sensor error detection and more)
- 3-way galvanic isolation between input, output/supply and alarm output.

Approvals

Approvals



Approvals

CULUS;

ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity

[UL Certification](#)
[Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

Engineering Data

[EPLAN, WSCAD, Zuken E3.S](#)

Software

[Software unit – WI-Manager, DTM-Library for online installation V.1.2.3](#)
[Release notes for Weidmueller FDT-DTM Software version 1.2.3.](#)

User Documentation

[Instruction sheet](#)
[20210120 Security Advisory WI-Manager affected by MM Software fdtCONTAINER vulnerability](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

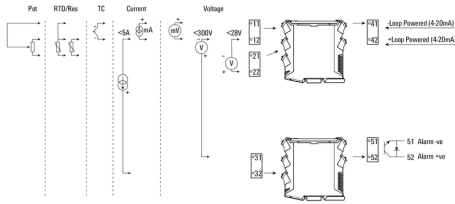
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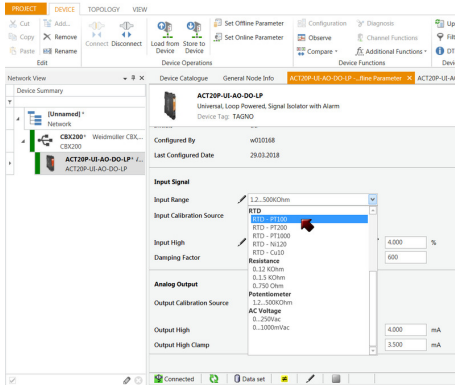
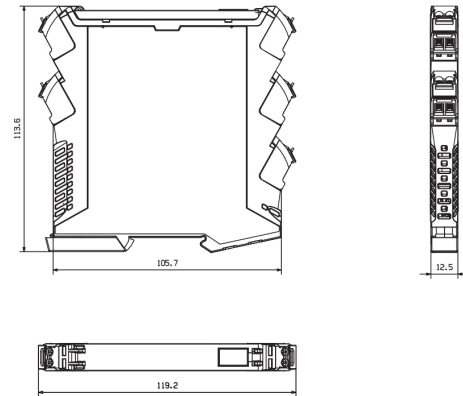
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Drawings

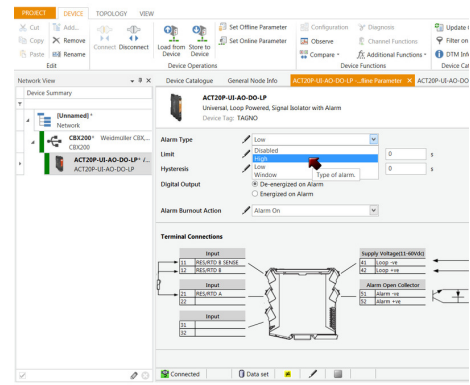
Connection diagram



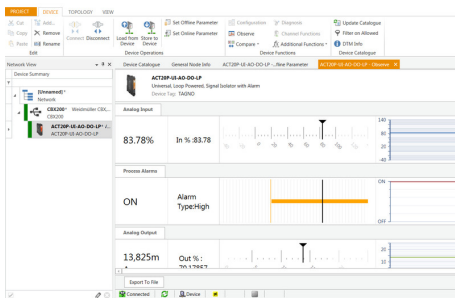
Dimensioned drawing



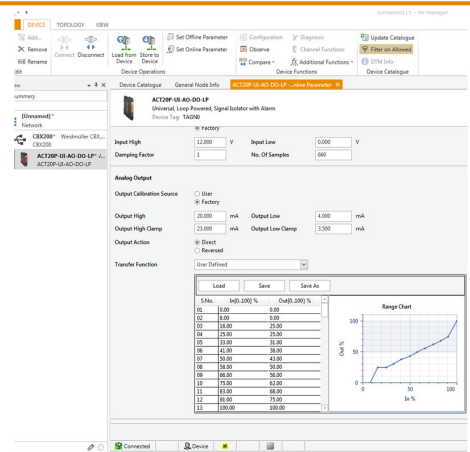
screenshot of configuration with FDT2 / DTM software



screenshot of configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software"



example of user defined transfer function for assigning customized output values

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Accessories

Configuration interfaces



General ordering data

| | |
|------------|----------------------------|
| Type | CBX200 USB |
| Order No. | 8978580000 |
| GTIN (EAN) | 4032248813759 |
| Qty. | 1 pc(s). |

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. | 1912130000 | 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. | 1082490000 | ESG, Device markers x 11 mm, PA 66, Colour: white |
| GTIN (EAN) | 4032248845330 | |
| Qty. | 200 pc(s). | |

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