

**ACT20P-UI-AO-DO-LP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****FDT2****ACT20P: The flexible solution**

- Precise and highly functional signal converters
- Release levers simplify handling

**General ordering data**

Version	Limit value monitoring, Input : universal U, I, R, 9, Output : 4-20 mA, (loop powered), Transistor (Alarm)
Order No.	<a href="#">1453210000</a>
Type	ACT20P-UI-AO-DO-LP
GTIN (EAN)	4050118259605
Qty.	1 pc(s).

## ACT20P-UI-AO-DO-LP

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## 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	150.632 g		

## Temperatures

Storage temperature	-20 °C...70 °C	Operating temperature	-20 °C...60 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	10...90 %, no condensation

## Probability of failure

SIL in compliance with IEC 61508	None
----------------------------------	------

## Input

Cable-length compensation	$\leq \pm 0.002 \Omega$ per cable resistance $\Omega$	Influence of the sensor cable resistance	5 $\Omega$ @ RTD- Kabel
Input current	configurable, $\pm 5$ A DC (min. measurement range 0.5 A)	Input resistance, current	40 $\Omega$
Input resistance, voltage		Input voltage	configurable, $\pm 150$ mV DC (min. measurement range 15 mV), $\pm 600$ mV DC (min. measurement range 50 mV), $\pm 12$ V DC (min. measurement range 1 V), $\pm 28$ V DC (min. measurement range 2 V), $\pm 300$ V DC (min. measurement range 100 V), 0...300 V AC
Number of inputs	1	Potentiometer	1.2...500 k $\Omega$
Resistance	$> 10$ M $\Omega$ @ 600 mV, 2 M $\Omega$	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 $\Omega$ , 0...1.5 k $\Omega$ , 0...12 k $\Omega$	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		

## Output

Load impedance current	$\leq 600 \Omega$	Type	passive, connected control must be active
------------------------	-------------------	------	---

Creation date July 3, 2025 8:48:08 PM CEST

Catalogue status 21.06.2025 / We reserve the right to make technical changes.

**ACT20P-UI-AO-DO-LP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Technical data****Output (digital)**

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

**Output (analogue)**

Load resistance current	typ. 700 Ω @ 24 V DC	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, Requires configuration adapter 8978580000 CBX200 USB	Nominal power consumption	2 VA
Operating altitude	≤ 2000 m	Protection degree	IP20
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**

EMC standards	EN 61326-1	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		

**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

**Classifications**

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ETIM 9.0	EC002653
ETIM 10.0	EC002653	ECLASS 9.0	27-21-01-20
ECLASS 9.1	27-21-01-20	ECLASS 10.0	27-21-01-20
ECLASS 11.0	27-21-01-20	ECLASS 12.0	27-21-01-20
ECLASS 13.0	27-21-01-20	ECLASS 14.0	27-21-01-20
ECLASS 15.0	27-21-01-20		

**ACT20P-UI-AO-DO-LP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



Approvals	CULUS;
Approvals MAMID	<a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_322323/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_322323/-T1z1mm-S800/</a>
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULusEX)	E338066

**Environmental Product Compliance**

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

**Important note**

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>
---------------------	--

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">UL Certification</a> <a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Software	<a href="#">WI-Manager, DTM-Library for online installation</a> <a href="#">Release notes for Weidmueller FDT-DTM Software version</a>
User Documentation	<a href="#">Instruction sheet</a> <a href="#">20210120 Security Advisory - WI-Manager affected by MundM Software fdtCONTAINER vulnerability</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

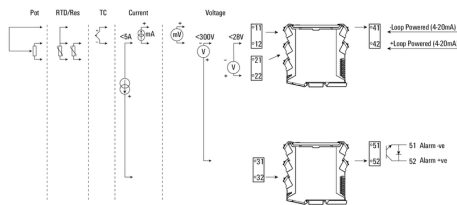
# ACT20P-UI-AO-DO-LP

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

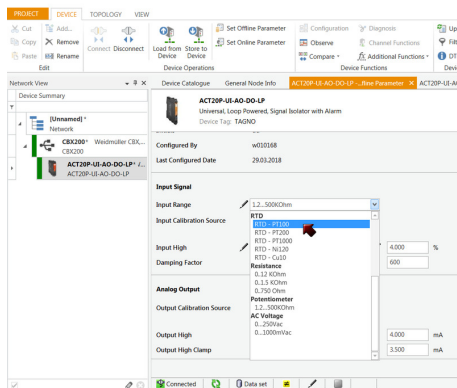
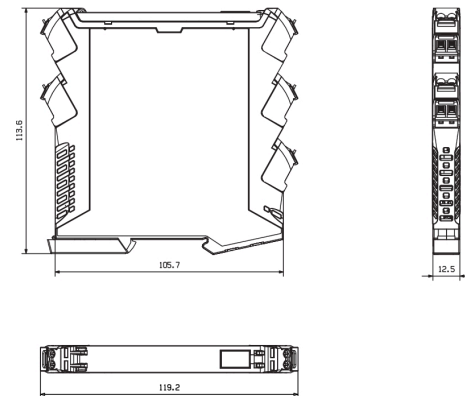
www.weidmueller.com

## Drawings

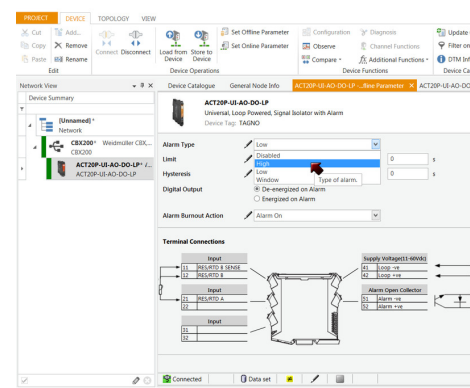
### Connection diagram



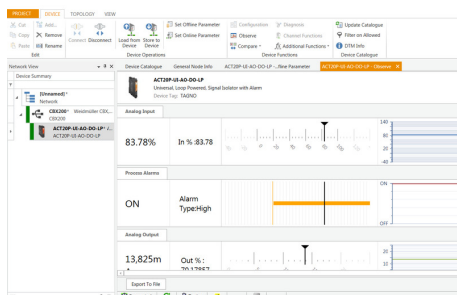
### Dimensioned drawing



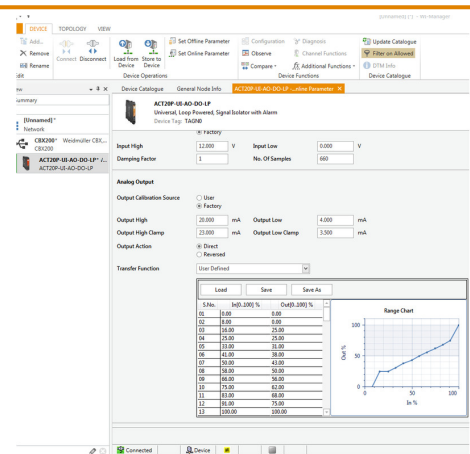
screenshot of configuration with FDT2 / DTM software



screenshot of configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software"



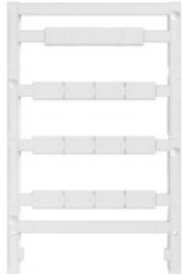
example of user defined transfer function for assigning customized output values

**ACT20P-UI-AO-DO-LP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[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	pluggable
Qty.	5 pc(s).	

**Configuration interfaces****General ordering data**

Type	CBX200 USB
Order No.	<a href="#">8978580000</a>
GTIN (EAN)	4032248813759
Qty.	1 pc(s).

**ACT20P-UI-AO-DO-LP****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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