

ACT20P
ACT20P-PRO DCDC II-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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Germany
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www.weidmueller.com

Product image**ACT20P: The flexible solution**

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

General ordering data

Type	ACT20P-PRO DCDC II-S
Order No.	1481970000
Version	ACT20P, Signal converter/isolator, Signal converter/isolator, universal, 24...230 V AC/DC power supply
GTIN (EAN)	4050118291032
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	113.7 mm	Depth (inches)	4.476 inch
Weight	130 g	Net weight	130 g

Temperatures

Operating temperature, max.	70 °C	Operating temperature, min.	-25 °C
Storage temperature, max.	85 °C	Storage temperature, min.	-40 °C
Operating temperature	-25 °C...70 °C	Storage temperature	-40 °C...85 °C

Probability of failure

MTBF	76 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

Number of inputs	1	Input signal	Voltage source, Current source
Input voltage	configurable, ± 40 mV... ± 300 V, Measuring range. min 40 mV	Input resistance, voltage	approx. 1 M Ω
Input current	configurable, ± 0.1 mA... ± 100 mA	Input resistance, current	< 5 mA: approx. 100 Ω ; >5 mA: approx. 5 Ω

Output

Output voltage, note	Adjustable, 0... ± 10 V	Output current	Adjustable, 0... ± 20 mA
Cut-off frequency (-3 dB)	> 10 kHz / < 10 Hz	load impedance voltage	≥ 1 k Ω
Load impedance current	≤ 600 Ω	Offset voltage	< 10 mV
Offset current	20 μ A	Status indicator	Green LED

Display

Type	Dot-matrix display with ticker text, green	Display value	current measured value, Configuration data
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General data

Accuracy	< 0.05 % of measuring range	Configuration	DIP switch, or via display and push-buttons
Galvanic isolation	3-way isolator, between input / output / supply	Power consumption	≤ 2.3 W
Rail	TS 35	Step response time	≤ 50 μ s
Temperature coefficient	$\leq 0.01\%$ des Messbereichs/ °C	Voltage supply	24...230 V DC ± 20 %, 24...230 V AC ± 10 % @ 48...62 Hz

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Technical data**Insulation coordination**

EMC standards	EN 60079-0, EN 60079-15, EN 61010-1, EN 61140, EN 61326-1, UL 61010-1, SN29500 for MTBF	Galvanic isolation	3-way isolator, between input/output/supply
Impulse withstand voltage	5 kV (1.2/50 µs)	Insulation voltage	4 kV _{eff} , input/output/power supply
Pollution severity	2	Rated voltage	600 V
Surge voltage category	II		

Data for Ex applications (ATEX)

Marking	II 3 G Ex nA IIC T4 Gc
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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
eClass 9.0	27-21-01-20	eClass 9.1	27-21-01-20
eClass 10.0	27-21-01-20		

Product information

Product information	The universally configurable DC isolating amplifier ACT20P-PRO DCDC II isolates and converts analogue signals. An analogue input signal (current or voltage) is linearly converted into an analogue output signal (current or voltage) and galvanically isolated. The power supply is galvanically isolated from the input and output (3-way isolation). Properties • universal wide-range voltage supply • universally configurable via DIP switch or via the LED display using control buttons • Active or passive signal output • Operating status display on a front panel LED • Galvanic 3-way isolation between input, output and supply.
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Approvals

Approvals



Approvals	CULUS;
ROHS	Conform

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Technical data

Downloads

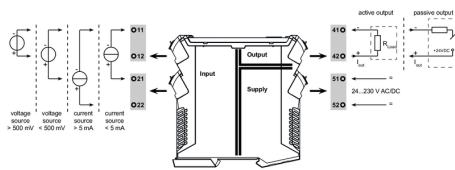
Approval/Certificate/Document of Conformity	Declaration of Conformity UL - certification DNV German Lloyd approval ATEX certification
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
Software	DIP switch configuration tool
User Documentation	instruction sheet

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Drawings

Wiring



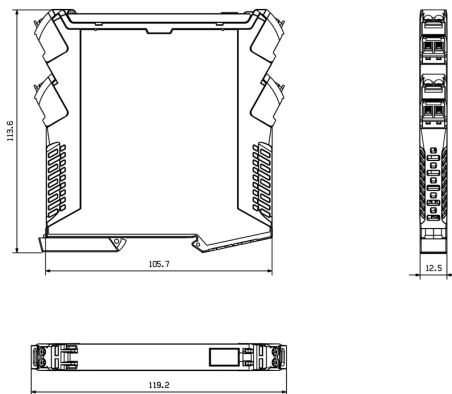
Configuration

Input range	DIP switch			
configuration via display	1	2	3	4
-10...+10 V				
-5...+5V				
0...300 V				
0...100 V				
0...30 V				
0...10 V				
2...10 V				
0...5 V				
1...5 V				
0...150 mV				
0...60 mV				
-20...+20 mA				
0...20 mA				
4...20 mA				
reserved				

Output range	DIP switch			
configuration via display	5	6	7	8
-10...+10 V				
-5...+5V				
10...0 V *				
0...10 V				
2...10 V				
5...0 V *				
0...5 V				
1...5 V				
-20...+20 mA				
-10...+10 mA				
20...0 mA *				
0...20 mA				
20...4 mA *				
4...20 mA				
reserved				

■ = ON * Inverted output range: Output polarity must be reversed!

Dimensioned drawing



Coding for mismatch protection

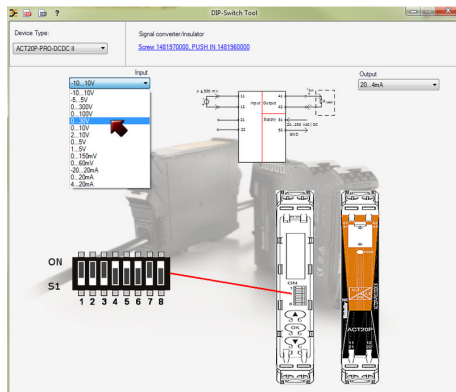


setting via display and push-buttons

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Drawings



example for DIP switch setting (with ACT20 tool)