

**ACT20P**  
**ACT20P-PRO DCDC II-S**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
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Germany  
Fon: +49 5231 14-0  
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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.	<a href="#">1481970000</a>
Version	ACT20P, Signal converter/insulator, Signal converter/isolator, universal, 24...230 V AC/DC power supply
GTIN (EAN)	4050118291032
Qty.	1 pc(s).

Creation date May 4, 2020 4:49:08 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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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, $\pm 40$ mV... $\pm 300$ V, Measuring range. min 40 mV	Input resistance, voltage	approx. 1 M $\Omega$
Input current	configurable, $\pm 0.1$ mA... $\pm$ 100 mA	Input resistance, current	< 5 mA: approx. 100 $\Omega$ ; >5 mA: approx. 5 $\Omega$

**Output**

Output voltage, note	Adjustable, 0... $\pm 10$ V	Output current	Adjustable, 0... $\pm 20$ mA
Cut-off frequency (-3 dB)	> 10 kHz / < 10 Hz	load impedance voltage	$\geq 1$ k $\Omega$
Load impedance current	$\leq 600$ $\Omega$	Offset voltage	< 10 mV
Offset current	20 $\mu$ 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	$\leq 2.3$ W
Rail	TS 35	Step response time	$\leq 50$ $\mu$ s
Temperature coefficient	$\leq 0.01\%$ des Messbereichs/ °C	Voltage supply	24...230 V DC $\pm 20$ %, 24...230 V AC $\pm 10$ % @ 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 <sub>eff</sub> , 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

**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
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.

**Approvals**

Approvals



Approvals CULUS;  
 ROHS Conform

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

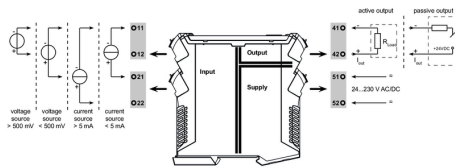
Approval/Certificate/Document of Conformity	<a href="#">Declaration of Conformity</a> <a href="#">UL - certification</a> <a href="#">DNV German Loyd approval</a> <a href="#">ATEX certification</a>
Brochure/Catalogue	<a href="#">CAT 4.1 ELECTR 16/17 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken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

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**Drawings**

**Wiring**



**Configuration**

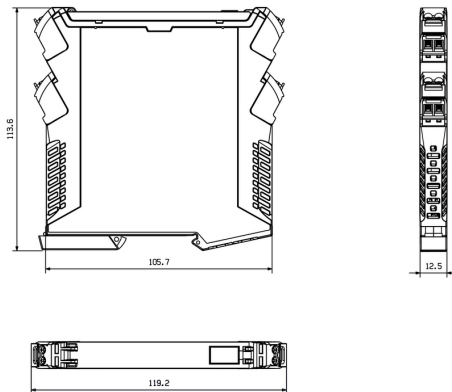
Input range	DIP switch			
	1	2	3	4
configuration via display				
-10...+10 V				
-5...+5V				
0...300 V				
0...100 V				
0...30 V				
0...10 V				
2...10 V				
0...5 V				
1...5 V				
0...150 mV				
0...60 mV				
-20...+20 mA				
0...20 mA				
4...20 mA				
reserved				

Output range	DIP switch			
	5	6	7	8
configuration via display				
-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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**Accessories**
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Accessories for the analogue signal processing products:

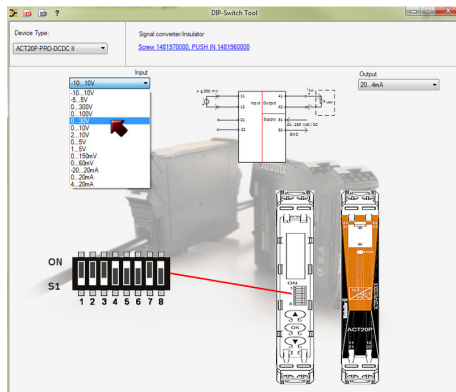
- End plates: for components with terminal-block design
- Retaining clips: for mounting IP6X signal isolators and displays
- Calibration devices: for calibrating and setting analogue signal converters
- MICRO interface: for direct transmission to a controller thus minimizing the wiring overhead
- markers
- Programming adapter: for configuring PC-configurable modules
- Cross-connector
- Power supply modules / power supplies
- Optional connection terminals and cold-junction compensation terminals

**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	
Qty.	5 pc(s).	
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
GTIN (EAN)	4032248845330	
Qty.	200 pc(s).	

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**Drawings**

example for DIP switch setting (with ACT20 tool)