

**ACT20P-PRO DCDC II-S**

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

www.weidmueller.com



**ACT20P: The flexible solution**

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

**General ordering data**

Version	Analogue isolating amplifier, 24...230 V AC/DC power supply, Input : I/U universal, Output : I/U universal
Order No.	<a href="#">1481970000</a>
Type	ACT20P-PRO DCDC II-S
GTIN (EAN)	4050118291032
Qty.	1 items

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**Technical data**

**Approvals**

Approvals	CCCEX; CE; CULUS; CULUSEX; DEMKOATEX; DETNORVER; IECEXULD
Approvals	CULUS;
Approvals	



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate no. (cULus)	E314307
Certificate no. (cULusEX)	E345958

**Dimensions and weights**

Depth	113.7 mm	Depth (inches)	4.4764 inch
Height	119.2 mm	Height (inches)	4.6929 inch
Width	12.5 mm	Width (inches)	0.4921 inch
Net weight	130 g		

**Temperatures**

Storage temperature	-40 °C...85 °C	Operating temperature	-20 °C...60 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	5...95 %, no condensation

**Probability of failure**

SIL in compliance with IEC 61508	None	MTBF	76 a
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**Environmental Product Compliance**

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-42 1a-46db-a0c2-cf1609156924

**Input**

Sensor	4- wire sensor (with own power supply)	Number inputs	1
Input voltage	configurable, ±40 mV... ±300 V, Measuring range. min 40 mV, (Example: 0...+40 mV or -40...0 mV or -20...+20 mV or...), Measuring range, max: 300 V	Input signal	Current or voltage input is selectable
Input current	configurable, ± 0.1mA...± 100 mA, Measuring range min. 200 µA	Input resistance, voltage	≥ 1 MΩ
Input resistance, current	<5 mA: approx. 100 Ω; >5 mA: approx. 5 Ω		

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## Technical data

### Output

load impedance voltage	$\geq 1 \text{ k}\Omega$	Load impedance current	$\leq 600 \Omega$
Offset voltage	$< 10 \text{ mV}$	Offset current	$20 \mu\text{A}$
Type	active (as current source) or passive (as current sink), connected control can be active / passive	Output voltage, note	Adjustable, $0 \dots \pm 10 \text{ V}$
Output current	configurable, $0 \dots \pm 20 \text{ mA}$	Cut-off frequency (-3 dB)	$> 10 \text{ kHz} / < 10 \text{ Hz}$

### Display

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

Accuracy	$< 0.05 \%$ of measuring range	Protection degree	IP20
Supply voltage	$24 \dots 230 \text{ V DC} \pm 20 \%$ , $24 \dots 230 \text{ V AC} \pm 10 \%$ @ $48 \dots 62 \text{ Hz}$	Step response time	$\leq 50 \mu\text{s}$
Mounting rail	TS 35	Power consumption	$\leq 2.3 \text{ W}$
Temperature coefficient	$\leq 0.01\%$ des Messbereichs/ $^{\circ}\text{C}$	Nominal power consumption	$2 \text{ VA}$
Configuration	DIP switch, or via display and push-buttons	Operating altitude	$\leq 2000 \text{ m}$

### Insulation coordination

Impulse withstand voltage	$5 \text{ kV} (1.2/50 \mu\text{s})$	EMC standards	EN 61326-1
Surge voltage category	II	Pollution severity	2
Galvanic isolation	3-way isolator, between input / output / supply	Insulation voltage	$4 \text{ kVeff}$ , input / output / power supply
Rated voltage	$600 \text{ V}$		

### 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.	$0.4 \text{ Nm}$
Tightening torque, max.	$0.6 \text{ Nm}$	Clamping range, rated connection	$2.5 \text{ mm}^2$
Clamping range, min.	$0.5 \text{ mm}^2$	Clamping range, max.	$2.5 \text{ mm}^2$
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

### Part description

Product description	<p>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).</p> <p>Properties</p> <ul style="list-style-type: none"> <li>• universal wide-range voltage supply</li> <li>• universally configurable via DIP switch or via the LED display using control buttons</li> <li>• Active or passive signal output</li> <li>• Operating status display on a front panel LED</li> <li>• Galvanic 3-way isolation between input, output and supply.</li> </ul>
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**Technical data**

**Classifications**

ETIM 8.0	EC002653	ETIM 9.0	EC002653
ETIM 10.0	EC002653	ECLASS 14.0	27-21-01-20
ECLASS 15.0	27-21-01-20		

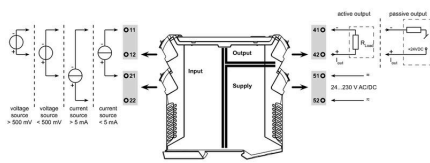
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**Drawings**

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**Wiring**



DIP switch setting for standard values

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			■	■
0...10 V			■	■
0...5 V			■	■
1...5 V			■	■
0...150 mV			■	■
0...60 mV			■	■
-20...+20 mA			■	■
0...20 mA			■	■
4...20 mA			■	■
reserved			■	■

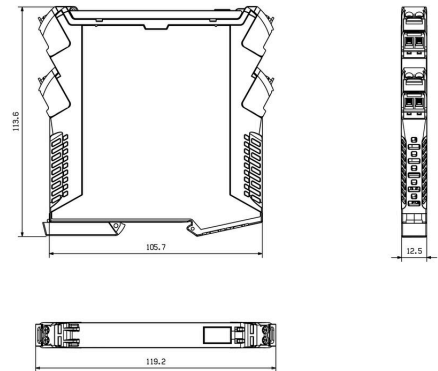
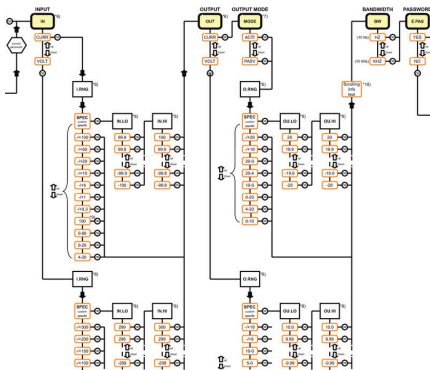
  

Output range	DIP switch			
	5	6	7	8
configuration via display				
-10...+10 V				■
-5...+5V				■
10...0 V *			■	■
0...10 V			■	■
2...10 V			■	■
0...5 V *			■	■
0...5 V			■	■
1...5 V			■	■
-20...+20 mA			■	■
-10...+10 mA			■	■
20...0 mA *			■	■
20...0 mA			■	■
0...20 mA			■	■
20...4 mA *			■	■
4...20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

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

**Dimensioned drawing**

Configuration menu (part) universal input / output values



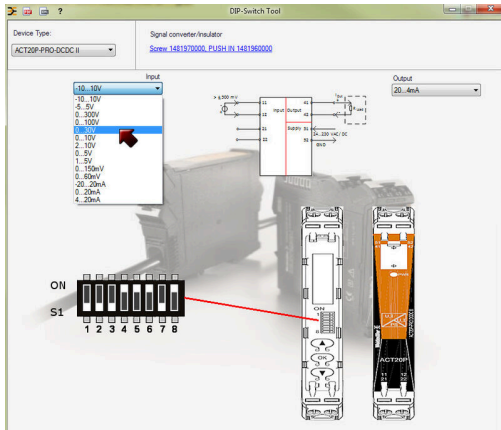
setting via display and push-buttons

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Drawings

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example for DIP switch setting (with ACT20 tool)

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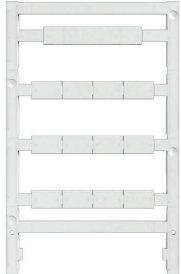
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## Accessories

### 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 ST		
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 ST		