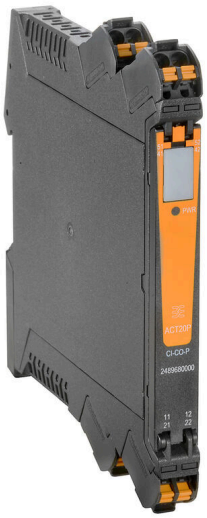
Data sheet

ACT20P-PRO DCDC II-P

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

www.weidmueller.com

Similar to illustration



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.	1481960000
Type	ACT20P-PRO DCDC II-P
GTIN (EAN)	4050118291025
Qty.	1 items

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Technical data

Approvals

Approvals	CCCEX; CE; CULUS; CULUSEX; DEMKOATEX; DETNORVER; IECEXULD
Approvals	CULUS;GERMLLOYD;
Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E314307
Certificate no. (cULusEX)	E345958

Dimensions and weights

Depth	113.7 mm	Depth (inches)	4.4764 inch
Height	127.1 mm	Height (inches)	5.0039 inch
Width	12.5 mm	Width (inches)	0.4921 inch
Net weight	130 g		

Temperatures

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

Probability of failure

SIL in compliance with IEC 61508	None	MTBF	76 a

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-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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Output

load impedance voltage	≥ 1 kΩ	Load impedance current	≤ 600 Ω
Offset voltage	<10 mV	Offset current	20 µA
Type	active (as current source) or passive (as current sink), connected control can be active / passive	Output voltage, note	Adjustable, 0...±10 V
Output current	configurable, 0...±20 mA	Cut-off frequency (-3 dB)	> 10 kHz/ <10 Hz

Output (analogue)

Number analogue outputs	1

Display

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

General data

Accuracy	<0.05 % of measuring range	Protection degree	IP20
Supply voltage	24...230 V DC ±20 %, 24...230 V AC ±10 % @ 48...62 Hz	Step response time	≤50 µs
Mounting rail	TS 35	Power consumption	≤2.3 W
Temperature coefficient	≤0.01% of the output measurement range / °C	Nominal power consumption	2 VA
Configuration	DIP switch, or via display and push-buttons	Operating altitude	≤ 2000 m

Insulation coordination

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

Data for Ex applications (ATEX)

Marking	II 3 G Ex nA IIC T4 Gc

Connection data

Type of connection	PUSH IN	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm²
Clamping range, min.	0.5 mm²	Clamping range, max.	2.5 mm²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 14
Wire cross-section, solid, min.	0.5 mm²	Wire cross-section, solid, max.	2.5 mm²
Wire connection cross section, finely stranded, min.	0.5 mm²	Wire connection cross section, finely stranded, max.	2.5 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.2 mm²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm²

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Part description

Product description	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.

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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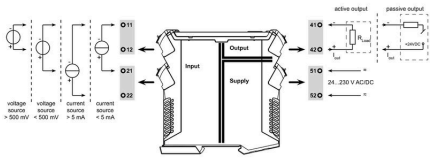
Drawings

Wiring

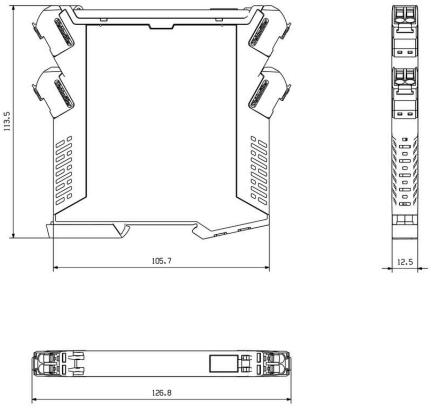


DIP switch setting for standard values

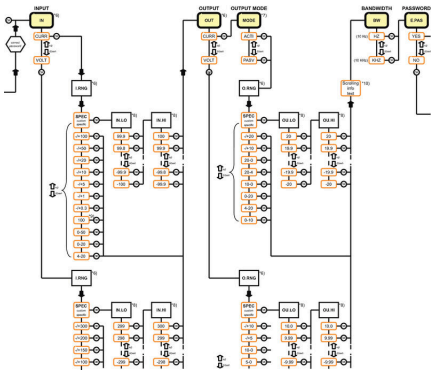
Input range	DIP switch 1	2	3	4	Output range	DIP switch 5	6	7	8
configuration via display					configuration via display				
-10...+10 V				■	-10...+10 V				■
-5...+5V			■		-5...+5V			■	
0...300 V			■	■	10...0 V *			■	■
0...100 V		■			0...10 V		■		
0...30 V		■		■	2...10 V		■		■
0...10 V		■	■		5...0 V *		■	■	
2...10 V		■	■	■	0...5 V		■	■	■
0...5 V	■				1...5 V	■			
1...5 V	■			■	-20...+20 mA	■			■
0...150 mV	■		■		-10...+10 mA	■		■	
0...60 mV	■		■	■	20...0 mA *	■		■	■
-20...+20 mA	■	■			0...20 mA	■	■		
0...20 mA	■	■		■	20...4 mA *	■	■		■
4...20 mA	■	■	■		4...20 mA	■	■	■	
reserved	■	■	■	■	reserved	■	■	■	■

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

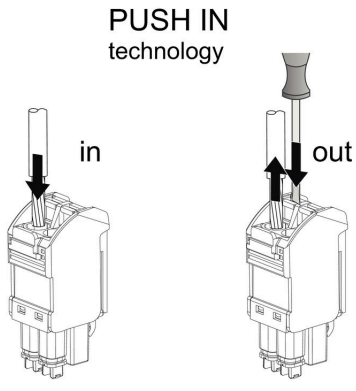
Dimensioned drawing



Configuration menu (part) universal input / output values



setting via display and push-buttons



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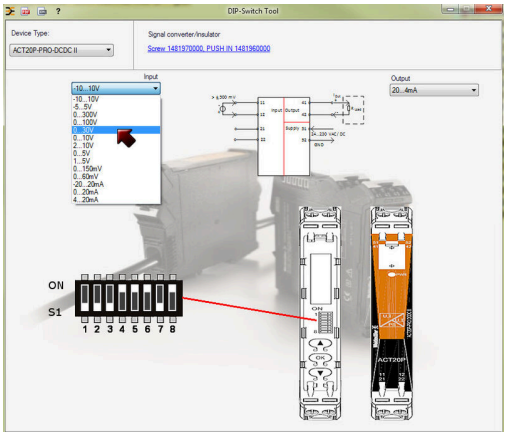

RTD signal isolating converters and converters with external power supply: for converting temperature and resistance sensors to normalised analogue values. These devices are available with or without electrical isolation. Depending on their housing type, these converters are available in widths of 6.1 mm, 12.5 and 17.5 mm.

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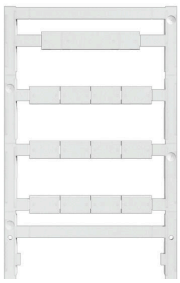
Accessories

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