

ACT20P-PRO DCDC II-24-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 V DC power supply, Input : I/U universal, Output : I/U universal
Order No.	2816700000
Type	ACT20P-PRO DCDC II-24-P
GTIN (EAN)	4064675313847
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E314307

Dimensions and weights

Depth	113.7 mm	Depth (inches)	4.4764 inch
Height	119.5 mm	Height (inches)	4.7047 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
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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	2f6dd957-421a-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, ± 0.1 mA... \pm 100 mA, Measuring range min. 200 μ A	Input resistance, voltage	≥ 1 M Ω
Input resistance, current	<5 mA: approx. 100 Ω ; >5 mA: approx. 5 Ω		

Output

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

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Display

Display 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 V DC (-20% / +30%)	Step response time	≤50 μs
Mounting rail	TS 35	Power consumption	≤2.3 W
Temperature coefficient	≤0,01% des Messbereichs/ °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
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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 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 14
Wire cross-section, solid, min.	0.5 mm ²	Wire cross-section, solid, max.	2.5 mm ²
Wire connection cross section, finely stranded, min.	0.5 mm ²	Wire connection cross section, finely stranded, max.	2.5 mm ²

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		

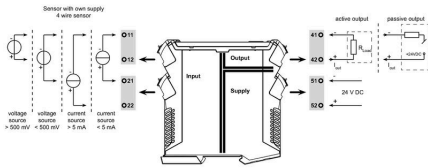
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Drawings

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Wiring



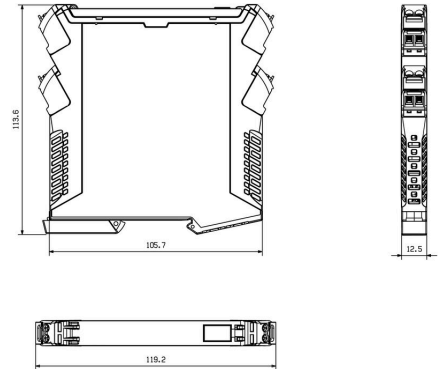
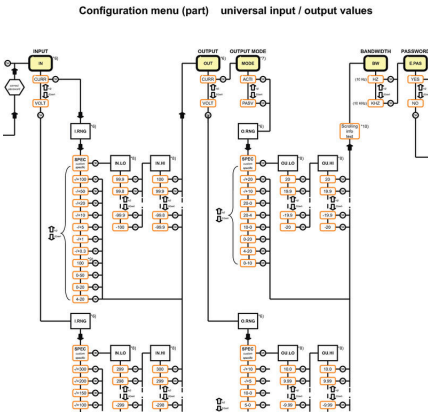
DIP switch setting for standard values

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			■	■
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			■	■

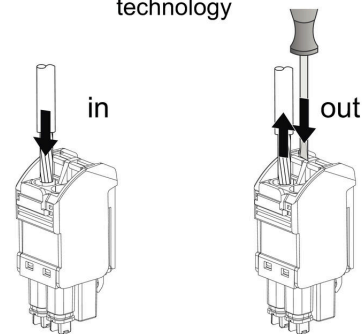
■ = ON * Inverted output range. Output polarity must be reversed!

Dimensioned drawing



setting via display and push-buttons

PUSH IN technology

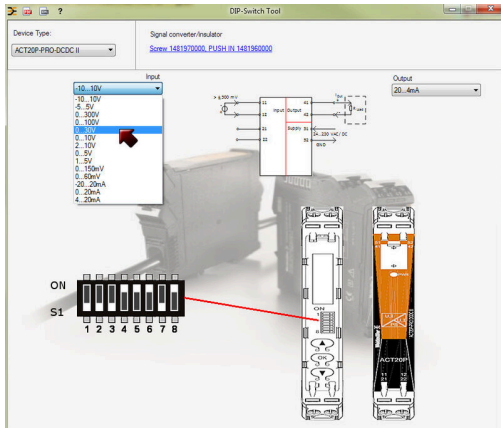


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RTD signal isolating converters and converters with external power supply: for converting temperature and resistance sensors to normalised analogue values. These devices are available with or without electrical isolation. Depending on their housing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