

ACT20P-AI-AO-DC-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, Input : I/U universal, Output : I/U universal, Signal converter/isolator, 24 V DC power supply
Order No.	1477420000
Type	ACT20P-AI-AO-DC-S
GTIN (EAN)	4050118284959
Qty.	1 items

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Technical data

Approvals

Approvals	CE; CULUSEX
Approvals	CULUS;
Approvals	



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULusEX)	E338066

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	116 g		

Temperatures

Storage temperature	-25 °C...70 °C	Operating temperature	-20 °C...60 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	10...90 %, no condensation

Probability of failure

SIL in compliance with IEC 61508	None
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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

Number inputs	1	Resolution	3.5 µA / 1.76 mV per bit
Sensor supply	24 V DC	Input voltage	configurable, 0-11 V (min. measurement range 2 V)
Input current	configurable, 0-22 mA (min. measurement range 4 mA)	Input resistance, voltage	≥ 1 MΩ
Input resistance, current	100 Ω		

Output

Number of outputs	1	load impedance voltage	> 600 Ω @ 10 V
Load impedance current	1 kΩ @ 20 mA	Offset voltage	≤ 20 mV
Type	active, connected control must be passive	Output voltage, note	Adjustable, 0...11 V, Output range, min, 2 V
Output current	Adjustable, 0...22 mA, Output range, min, 4 mA		

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Protection degree	IP20	Supply voltage	12...60 V DC
Linearity	<± 0.1 % of signal range, Typ. ± 0.05 % of signal range	Step response time	350 ms
Mounting rail	TS 35	Temperature coefficient	<0.05 % / °C
Nominal power consumption	2 VA	Configuration	DIP switch, Front push-button, with reference voltage/current sources
Operating altitude	≤ 2000 m	Power consumption, typ.	3 W

Insulation coordination

Impulse withstand voltage	4 kV (1.2/50 µs)	EMC standards	EN 61326-1
Surge voltage category	III	Pollution severity	2
Galvanic isolation	3-way isolator, between input / output / supply	Insulation voltage	2 kV inputs / outputs

Connection data

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	1.5 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

Part description

Product description	<p>The universally configurable DC isolating amplifier ACT20P-AI-AO-DC/AC-x isolates and converts analogue signals.</p> <p>An analogue input signal (current or voltage) is linearly converted into an analogue output signal (current or voltage) and galvanically isolated.</p> <p>The power supply is galvanically isolated from input and output (3-way isolation).</p> <p>Features</p> <ul style="list-style-type: none"> • Universally configurable via DIP switches and operating buttons • Active or passive signal input • Front LED indicates operation status • 3-way galvanic isolation between input, output and power supply
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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		

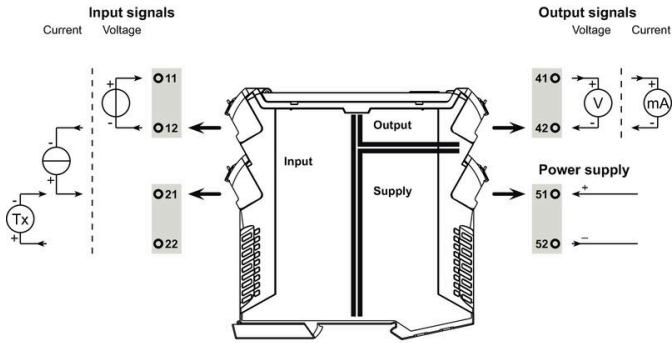
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Drawings

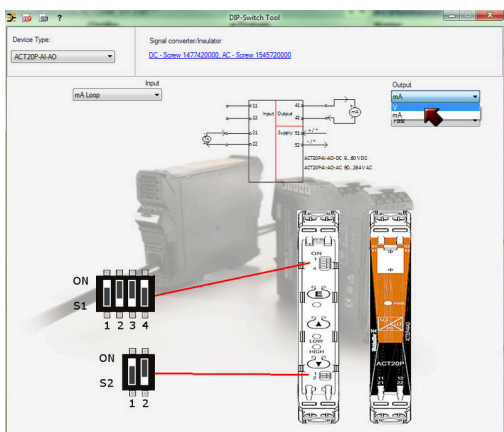
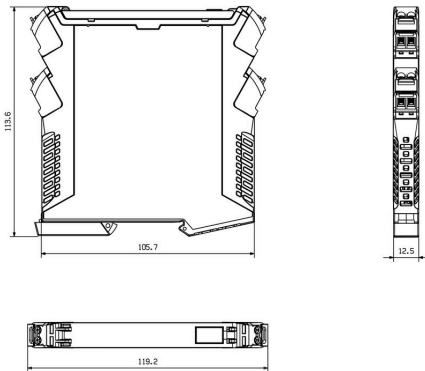
Connection diagram



Input		Output			
Input range	DIP switch S2	DIP switch S1			
	1	2	3	4	
current	■				■
voltage		■			■
filtered response		■			
fast response					

■ = ON

Dimensioned drawing



example for DIP switch setting (with ACT20 tool)