

ACT20M
ACT20M-BAI-AO-S

Weidmüller Interface GmbH & Co. KG
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Product image, Similar to illustration**ACT20M: The slim solution**

- Safe and space-saving (6 mm) isolation and conversion
- Quick installation of the power supply unit using the CH20M mounting rail bus
- Easy configuration via DIP switch or FDT/DTM software
- Extensive approvals such as ATEX, IECEx, GL, DNV
- High interference resistance

General ordering data

Type	ACT20M-BAI-AO-S
Order No.	1375450000
Version	Signal converter/insulator, Configurable, Input : I/U/bidirectional I, Output : I/U/bidirectional I
GTIN (EAN)	4050118236736
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	6.1 mm	Width (inches)	0.24 inch
Height	112.5 mm	Height (inches)	4.429 inch
Depth	114.3 mm	Depth (inches)	4.5 inch
Net weight	80 g		

Temperatures

Humidity	40 °C / 93 % rel. humidity, no condensation	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
Ambient temperature	-25 °C...+70 °C	Storage temperature	-40 °C...85 °C

Probability of failure

MTBF	181 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

UL certificate	E337701.pdf
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Input

Number of inputs	1	Sensor	Voltage source, Current source
Input voltage	configurable, -5 V...0...+5 V, -10 V...0...+10 V	Input resistance, voltage	≥ 1 MΩ
Input current	configurable, -10 mA...0...+10 mA, -20 mA...0...+20 mA	Voltage drop, current input	1 V at 20 mA

Output

Number of outputs	1	Output voltage, note	configurable, 0(2)...10 V, 0(1)...5 V
Output current	configurable, 0...20 mA, 4...20 mA	Cut-off frequency (-3 dB)	≥ 100 Hz, 10 Hz
load impedance voltage	≥ 10 kΩ	load impedance current	≤ 600 Ω

General data

Accuracy	< 0.05 % of measuring range	Configuration	DIP switch
Galvanic isolation	4-way isolator;	Power consumption, max.	0.8 W
Power consumption, typ.	0.56 W	Rail	TS 35
Step response time	≤ 7 ms, ≤ 100 ms, Configurable	Temperature coefficient	< 0.01% of span/°C (TU)
Voltage supply	24 V DC ± 30 %		

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Insulation coordination

EMC standards	IEC 61326-1, NE 21	Galvanic isolation	4-way isolator;
Insulation voltage	2.5 kV _{eff} / 1 min.	Pollution severity	2
Rated voltage	300 V _{eff}	Surge voltage category	II

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 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 30	Wire connection cross section AWG, max.	AWG 14

Ratings IECEx/ATEX/cUL

Certificate No. (ATEX)	KEMA10ATEX0183X	Certificate No. (IECEx)	IECExKEM10.0090X
Certificate no. (cULus)	E337701		

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 configurable DC-Converter ACT20M-BAI-AO-S separates and converts standard analogue signals. An analogue input signal is converted linear and galvanic isolated into an analogue output signal. The power supply is galvanically isolated from input and output and happens via a direct wiring or the Weidmüller DIN Rail Bus (3-way isolation).
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Approvals

Approvals



ROHS	Conform
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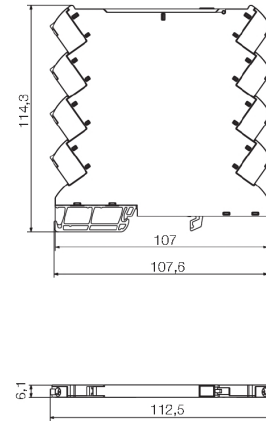
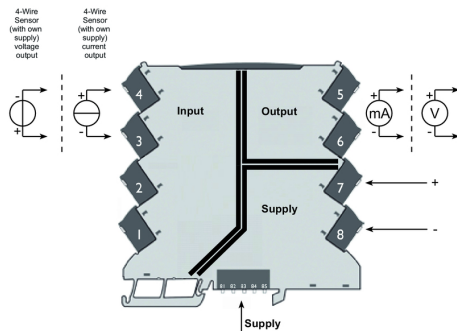
Technical data

Downloads

Approval/Certificate/Document of Conformity	DNV-GL certificate Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
Software	DIP switch configuration tool
User Documentation	Instruction sheet

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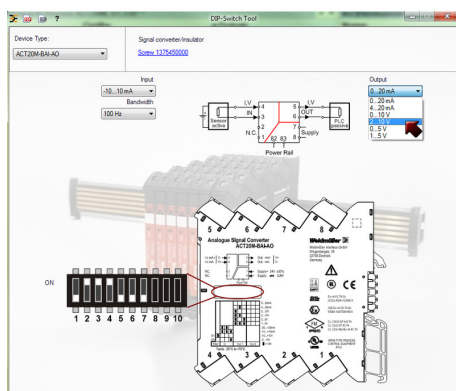
Drawings
Connection diagram


Power supply via the rail bus

DIP switch setting

Input Setup					
Bandwidth	1	Input range	2	3	4
10 Hz	■	-10...+10 mA	■	■	■
100 Hz		-20...+20 mA	■	■	■
■ = ON		-5...+5 V			■
		-10...+10 V			

Output setup		Output range	5	6	7
		0...20 mA			
		4...20 mA		■	
		0...10 V	■		
		2...10 V	■	■	
		0...5 V	■		■
		1...5 V	■	■	■


 example for DIP switch setting
 (with ACT20M-Tool software)