

ACT20M-BAI-2AO-S**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**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

Version	Signal duplicator/isolator, Configurable, Input : I/U/bidirectional I, Output : I/U/bidirectional I
Order No.	1375470000
Type	ACT20M-BAI-2AO-S
GTIN (EAN)	4050118236729
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

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

Temperatures

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

Probability of failure

MTBF	181 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

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

Output

Cut-off frequency (-3 dB)	≥ 100 Hz, 10 Hz	Load impedance current	< 300 Ω, per channel
Number of outputs	2	Output current	configurable, 0...20 mA, 4...20 mA, 1 channel -10...0...+10 mA, 1 channel -20...0...+20 mA
Output voltage, note	configurable, 0(2)...10 V, 0(1)...5 V	load impedance voltage	≥ 10 kΩ

General data

Accuracy	< 0.05 % of measuring range	
Configuration	DIP switch	
Delivery state	Bandwidth: 100 Hz // Input: -10...10 V // Output 1: 0...20 mA // Output 2: 0...20 mA	
Delivery state	Setting parameters	Bandwidth
	Configuration	100 Hz
	Setting parameters	Input
	Configuration	-10...10 V
	Setting parameters	Output 1
	Configuration	0...20 mA
	Setting parameters	Output 2
	Configuration	0...20 mA
Galvanic isolation	4-way isolator;	
Power consumption, max.	1.2 W	
Power consumption, typ.	0.84 W	
Rail	TS 35	

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Technical data

Step response time	≤ 7 ms, ≤ 100 ms, Configurable
Temperature coefficient	< 0.01% of span/°C (TU)
Type of connection	Screw connection
Voltage supply	24 V DC ± 30 %

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

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	ECLASS 11.0	27-21-01-20

Important note

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). The configurable DC-Converter ACT20M-BAI-2AO-S provides the same functionality, but has two galvanically separated outputs (4-way split).
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Approvals

Approvals



ROHS	Conform
UL File Number Search	E337701

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Technical data

Downloads

Approval/Certificate/Document of Conformity	DNV-GL certificate FM certificate IECEXx certificate ATEX certificate Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Software	DIP switch configuration tool
User Documentation	Instruction sheet

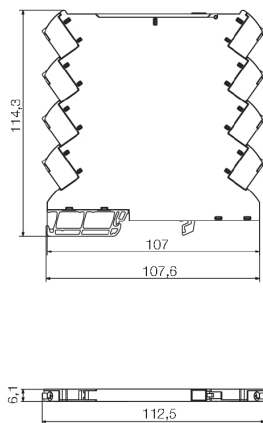
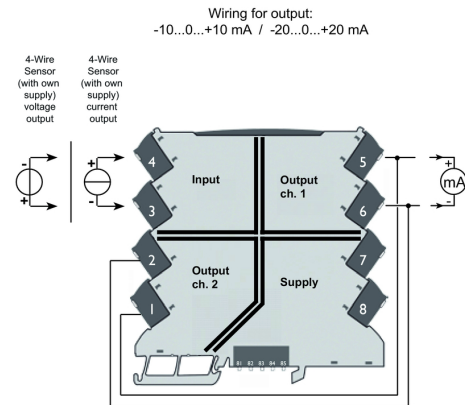
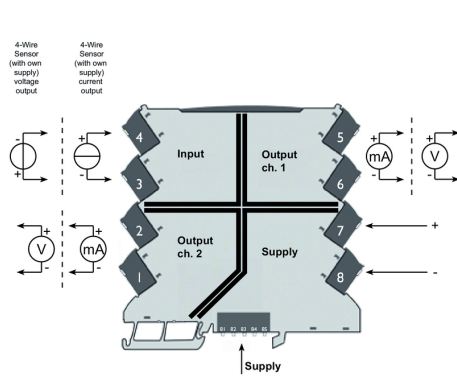
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Drawings

Connection diagram

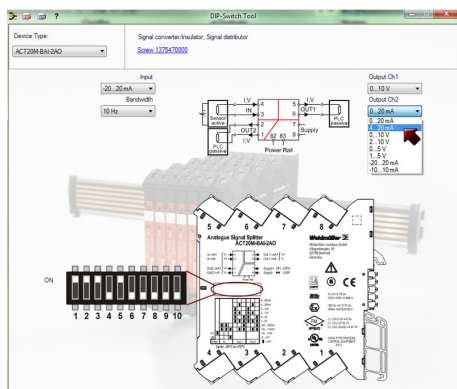


DIP switch setting

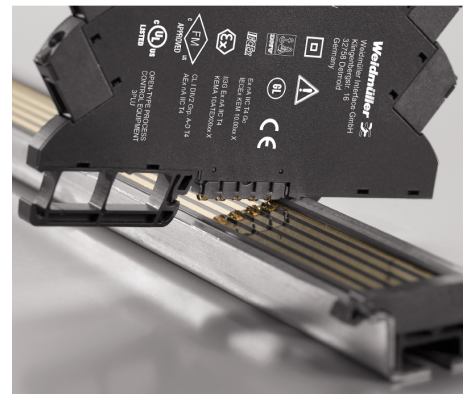
Input Setup					
Bandwidth	1	Input range	2	3	4
10 Hz	☐	-10...+10 mA	☐	☐	☐
100 Hz	☐	-20...+20 mA	☐	☐	☐
		-5...+5 V	☐	☐	☐
		-10...+10 V	☐	☐	☐

☒ = ON

Output setup	Output 1			Output 2		
Output range	5	6	7	8	9	10
0...20 mA						
4...20 mA		■			■	
0...10 V	■			■		
2...10 V	■	■		■	■	
0...5 V	■		■	■		■
1...5 V	■	■	■	■	■	■
±20 mA set-up			■			■
±10 mA set-up		■	■		■	■



example for DIP switch setting
 (with ACT20M tool software)



Power supply via the rail bus