

## ACT20M-BAI-2AO-S

Weidmüller Interfaces 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

Version	Signal splitter, Configurable, Input : I/U/ bidirectional I, Output : 2 x I/U or 1 x bidirectional
Order No.	<a href="#">1375470000</a>
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
Width	6.1 mm	Width (inches)	0.24 inch
Net weight	80 g		

## Temperatures

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

## Probability of failure

SIL in compliance with IEC 61508	None	MTBF	181 Years
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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	Type	active, connected control must be passive
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;		
Long-term drift	0		
Power consumption, max.	1.2 W		
Power consumption, typ.	0.84 W		
Rail	TS 35		
Step response time	≤ 7 ms		

Creation date February 21, 2023 2:25:46 PM CET

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**Technical data**

Temperature coefficient	<0.01% of span/°C (TU)	
Type of connection	Screw connection	
Voltage supply	24 V DC $\pm$ 30 %	

**Insulation coordination**

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

**Data for Ex applications (ATEX)**

Installation location	Device installed in safe area, zone 2	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 <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14

**EMC conformity and approvals**

EMC standards	IEC 61326-1, NE 21	Standards	IEC 61010-1
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**Classifications**

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	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	ECLASS 12.0	27-21-01-20

**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

**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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**Technical data**

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E337701

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">DNV-GL certificate</a> <a href="#">FM certificate</a> <a href="#">IECEX certificate</a> <a href="#">ATEX certificate</a> <a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">WSCAD, Zuken E3.S</a>
Software	<a href="#">Runtime Software – DIP switch configuration tool</a>
User Documentation	<a href="#">Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

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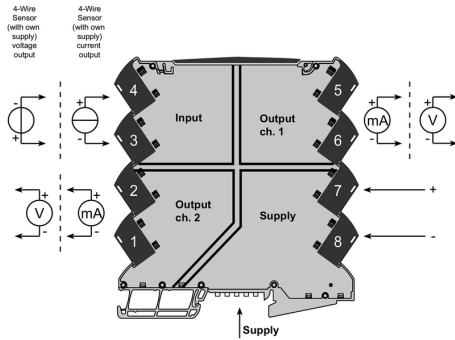
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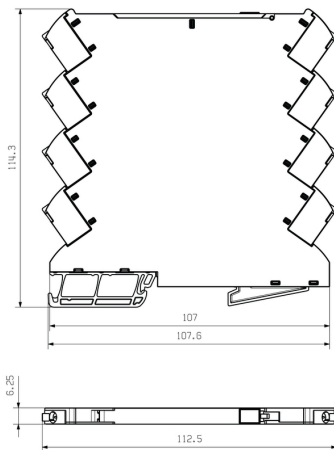
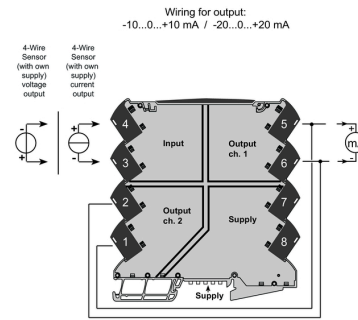
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**Drawings**

**Connection diagram**



**Connection diagram** info@weidmueller.com

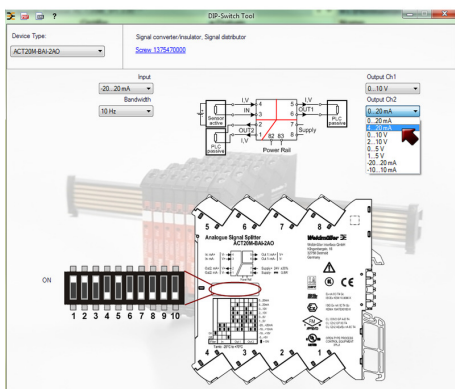


**DIP switch setting**

Input Setup		1	2	3	4
Bandwidth	10 Hz	■	■	■	■
	100 Hz		■	■	■
	Input range	-10...+10 mA			
		-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