

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).

Creation date May 3, 2020 7:51:22 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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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		
Delivery state	Setting parameters	Bandwidth	
	Configuration	100 Hz	
	Setting parameters	Input	
	Configuration	-10...10 V	
	Setting parameters	Output	
Configuration	0...20 mA		
Galvanic isolation	4-way isolator;		
Power consumption, max.	0.8 W		
Power consumption, typ.	0.56 W		

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Data sheet

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Technical data

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 %

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		

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).

Approvals

Approvals



ROHS	Conform
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Technical data**Downloads**

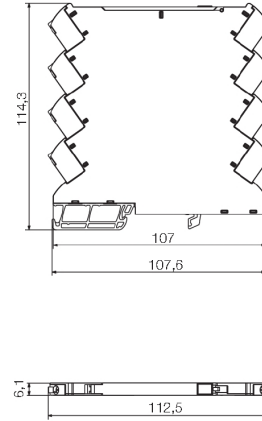
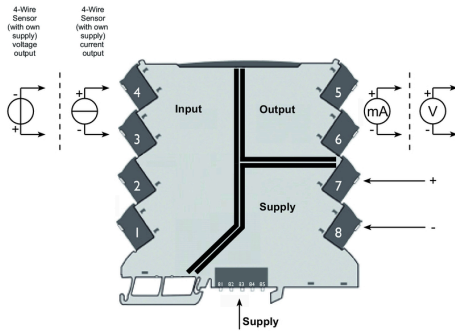
Approval/Certificate/Document of Conformity	DNV-GL certificate EAC certificate FM certificate IECEX certificate ATEX certificate Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
Software	DIP switch configuration tool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

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Drawings

Connection diagram



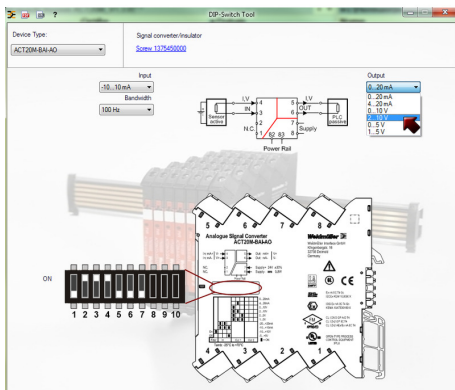
Power supply via the rail bus

DIP switch setting

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

■ = ON

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)

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Accessories
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Accessories for the analogue signal processing products:

- End plates: for components with terminal-block design
- Retaining clips: for mounting IP6X signal isolators and displays
- Calibration devices: for calibrating and setting analogue signal converters
- MICRO interface: for direct transmission to a controller thus minimizing the wiring overhead
- markers
- Programming adapter: for configuring PC-configurable modules
- Cross-connector
- Power supply modules / power supplies
- Optional connection terminals and cold-junction compensation terminals

General ordering data

Type	MF 5/7.5 MC NE WS	Version
Order No.	1877680000	MultiFit, Terminal marker, 5 x 7.5 mm, Pitch in mm (P): 7.50 Adels
GTIN (EAN)	4032248468270	RKW, Phoenix, white
Qty.	320 pc(s).	
Type	ACT20-FEED-IN-BASIC-S	Version
Order No.	1282490000	ACT20M, Supply module, Screw connection
GTIN (EAN)	4050118072730	
Qty.	1 pc(s).	
Type	SET CH20M BUS 250MM TS ...	Version
Order No.	1335140000	OMNIMATE Housing - series CH20M, Length: 250 mm, Width: 25.1
GTIN (EAN)	4050118138375	mm
Qty.	1 pc(s).	