

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 splitter, Configurable, Input : I/U/ bidirectional I, Output : 2 x I/U or 1 x bidirectional
Order No.	1375470000
Type	ACT20M-BAI-2AO-S
GTIN (EAN)	4050118236729
Qty.	1 Stück

Erstellungs-Datum May 25, 2023 10:54:27 AM CEST

Katalogstand 12.05.2023 / Technische Änderungen vorbehalten

ACT20M-BAI-2AO-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technische Daten

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

MTBF	181 Years
------	-----------

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	100 Hz
	Configuration	Input	-10...10 V
	Setting parameters	Output 1	0...20 mA
	Configuration	Output 2	0...20 mA
	Setting parameters		
	Configuration		
Galvanic isolation	4-way isolator;		
Power consumption, max.	1.2 W		
Power consumption, typ.	0.84 W		
Rail	TS 35		
Step response time	≤ 7 ms		
Temperature coefficient	<0.01% of span/°C (TU)		

Erstellungs-Datum May 25, 2023 10:54:27 AM CEST

ACT20M-BAI-2AO-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technische Daten

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 _{eff} / 1 min.	Pollution severity	2
Rated voltage	300 V _{eff}	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
-----------------------	---------------------------------------	---------	------------------------

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

EMC conformity and approvals

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

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).

ACT20M-BAI-2AO-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technische Daten

Approvals

Approvals



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

Downloads

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

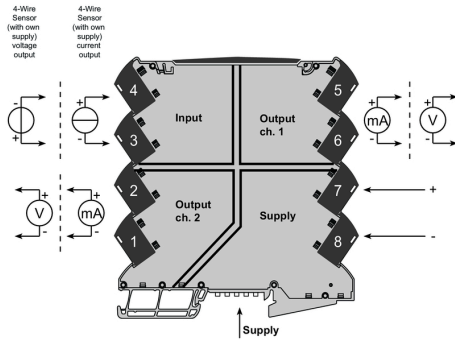
ACT20M-BAI-2AO-S

Weidmüller Interface GmbH & Co. KG
 Klängenbergstraße 26
 D-32758 Detmold
 Germany

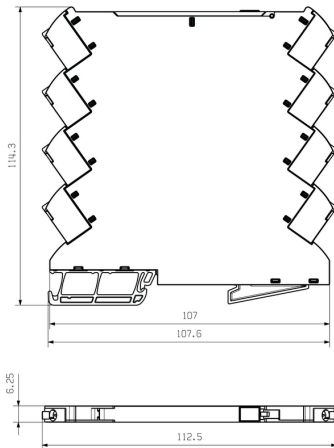
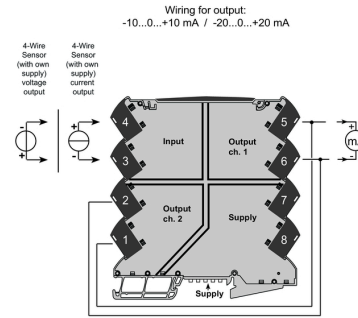
www.weidmueller.com

Zeichnungen

Connection diagram



Connection diagram

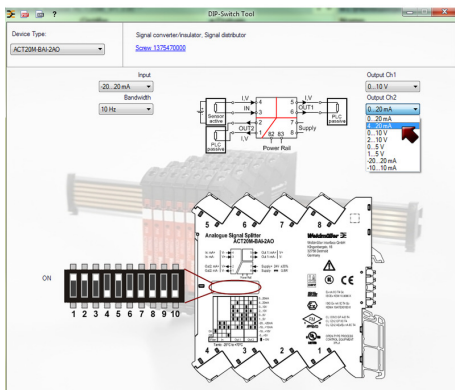


DIP switch setting

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