

## ACT20M ACT20M-AI-2AO-S

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 1429-0  
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 www.weidmueller.com



### 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-AI-2AO-S
Order No.	<a href="#">1176020000</a>
Version	Signal duplicator/isolator, Signal distributor, Configurable, with sensor supply, Input : I / U, Output : I / U
GTIN (EAN)	4032248970087
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	-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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**Input**

Number of inputs	1	Sensor supply	> 17 V DC at 20 mA
Input voltage	configurable, 0(2)...10 V, 0(1)...5 V	Input resistance, voltage	500 kΩ
Input current	configurable, 0...20 mA, 4...20mA	Voltage drop, current input	< 1.5 V
Input resistance, current	70 Ω	Voltage drop	<1,5 V

**Output**

Number of outputs	2	Output voltage, note	configurable, 0(2)...10 V, 0(1)...5 V
Output current	adjustable, 0...20 mA, 4...20 mA	Cut-off frequency (-3 dB)	100 Hz
load impedance voltage	≥ 10 kΩ	load impedance current	< 300 Ω, per channel, @ max 23mA

**General data**

Accuracy	< 0.05 % of measuring range	Configuration	DIP switch
Galvanic isolation	3-way isolator	Mounting rail	TS 35
Power consumption, max.	1.2 W	Power consumption, typ.	0.84 W
Step response time	≤ 7 ms	Supply voltage	24 V DC ± 30 %
Temperature coefficient	≤ 0.01 % / °C		

**Insulation coordination**

EMC standards	IEC 61326-1, NE 21	Galvanic isolation	3-way isolator
Insulation voltage	2.5 kV <sub>eff</sub> / 1 min.	Pollution severity	2
Rated voltage	300 V <sub>eff</sub>	Standards	IEC 61010-1
Surge voltage category	II		

**Data for Ex applications (ATEX)**

Marking	II 3 G Ex nA IIC T4 Gc
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**Data sheet**

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**Technical data**

**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, rated connection, min.	0.5 mm <sup>2</sup>	Clamping range, rated connection, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14

**Rated data UL**

UL certificate	E337701.pdf
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**Ratings IECEx/ATEX/cUL**

Certificate No. (ATEX)	KEMA10ATEX0183X	Certificate No. (IECEX)	IECEXKEM10.0090X
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**Classifications**

ETIM 3.0	EC002479	ETIM 4.0	EC002653
ETIM 5.0	EC002653	ETIM 6.0	EC002653
eClass 6.2	27-21-01-20	eClass 7.1	27-21-01-20
eClass 8.1	27-21-01-20	eClass 9.0	27-21-01-20
eClass 9.1	27-21-01-20		

**Product information**

Product information	The configurable DC isolating amplifier ACT20M-AI-AO-S isolates and converts analogue standard signals. An analogue input signal is linearly converted into an analogue output signal and galvanically isolated. The input can also be operated as an active current loop (the loop current is supplied by the device). The power supply is galvanically isolated from the input and output (3-way isolation) by means of direct wiring or the Weidmüller rail bus. The configurable DC isolation amplifier ACT20M-AI-2AO-S offers the same functionality, but has 2 galvanically isolated outputs (4-way isolation).
Descriptive text technical data	Power supply optionally over the DIN mounting rail CH20M
Descriptive text accessories	DIN mounting rail, see Accessories

**Approvals**

Approvals



ROHS	Conform
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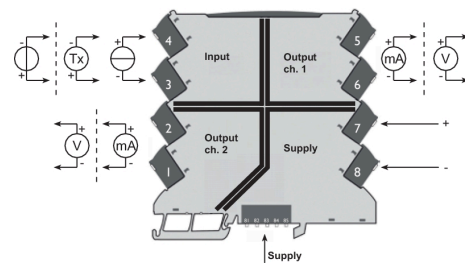
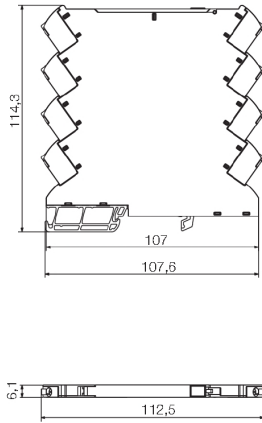
**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.1 ELECTR 16/17 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken E3.S</a>
Software	<a href="#">DIP switch configuration tool</a>
User Documentation	<a href="#">Instruction sheet</a>

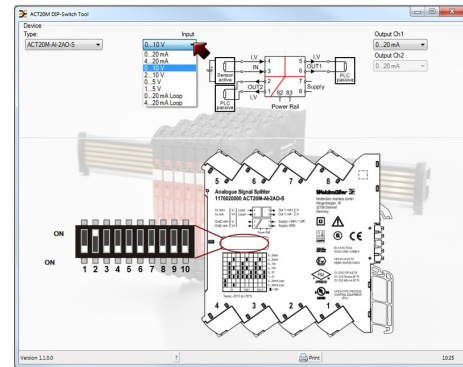
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**Drawings**



Power supply via the rail bus



Example of DIP switch setting with software tool

Power supply via the rail bus

Example of DIP switch setting with software tool