

ACT20M ACT20M-RTI-CO-EOLP-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-RTI-CO-EOLP-S
Order No.	1435610000
Version	Temperature converter, 2-/3-/4- wire RTD, Input : Temperature, Output : 4-20 mA, (loop powered)
GTIN (EAN)	4050118240528
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	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C	Operating temperature	
Ambient temperature	-25 °C...+70 °C	Storage temperature	-40 °C...85 °C

Probability of failure

MTBF	227 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	PT100 / 2-/3-/4-wire
Influence of the sensor cable resistance	< 0.002 Ω	Input measurement range	PT100 -200...+850 °C
Line resistance in measuring circuit	50 Ω @ RTD (Pt100), 10 kΩ @ TC (J, K)	Temperature input range	Configurable, min. measurement range 10°C (RTD)

Output

Number of outputs	1	Output current	configurable, 4...20 mA, 20...4 mA
Wire break detection	3.5 mA / 23 mA / none		

General data

Accuracy	absolute accuracy: < ±0.1 % of the measurement range, Basic accuracy: < ±0.2°C	Cold-junction compensation error	±(2.0 °C + 0.4 °C x Δt) Δt = inside temperature - ambient temperature
Configuration	DIP switch	Galvanic isolation	Without isolation
Power consumption, max.	0.8 W	Power consumption, typ.	0.48 W
Rail	TS 35	Step response time	≤ 30 ms, < 300 ms
Temperature coefficient	RTD (PT100) ≤ 0.01 % of the measurement range°C or 0.02 °C/°C	Voltage supply	Output loop powered, 6... 35 V

Insulation coordination

EMC standards	IEC 61326-1, NE 21	Galvanic isolation	Without isolation
Pollution severity	2		

Creation date May 27, 2019 3:51:04 PM CEST

Catalogue status 23.05.2019 / We reserve the right to make technical changes.

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Technical data

Data for Ex applications (ATEX)

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

Ratings IECEx/ATEX/cUL

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

Classifications

ETIM 5.0	EC002653	ETIM 6.0	EC002919
eClass 6.2	27-21-01-20	eClass 7.1	27-21-01-20
eClass 8.1	27-21-01-20	eClass 9.0	27-21-01-29
eClass 9.1	27-21-01-29		

Product information

Product information The ACT20M-RTCI-CO-OLP-S passive configurable temperature transducer isolates and converts analogue signals. An analogue RTD (Type Pt100) or TC (Type J, K) input signal is linearly converted into an analogue output signal and galvanically isolated. Power is supplied through the output measurement circuit (output-loop powered).
The ACT20M-RTI-CO-EOLP-S passive configurable temperature transducer does not have any galvanic isolation and has no TC input.

Approvals

Approvals



ROHS Conform

Downloads

Approval/Certificate/Document of Conformity	DNV-GL certificate Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
Software	DIP switch configuration tool
User Documentation	instruction sheet

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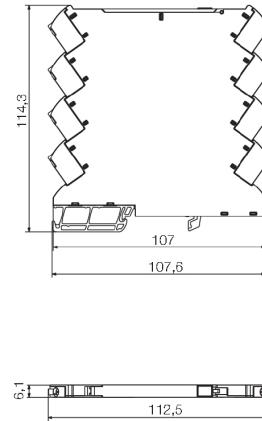
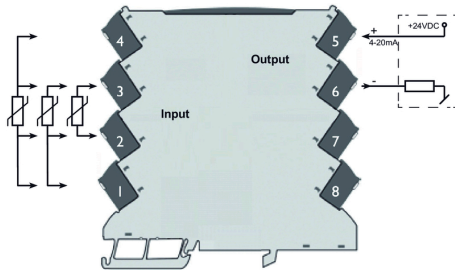
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Drawings

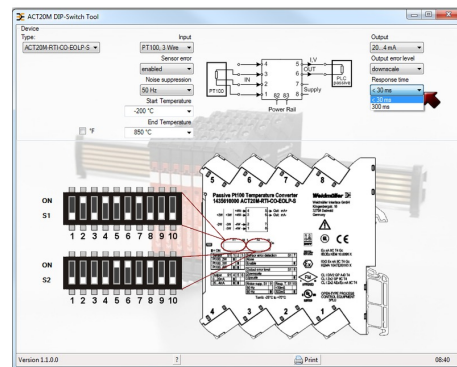
Connection diagram



DIP switch setting

	S1	Temperature range [°C]				PT100: -200...+850 °C			
		Min.	S2	Max.	S2	Min.	S2	Max.	S2
RTD & TC sensor type	1/200								
PT100-2 wire	1								
PT100-3 wire	1								
PT100-4 wire	1								
Output	1/1500								
4...20 mA	1								
20...4 mA	1								
Sensor error detection	7								
none	1								
enabled	1								
Output error level	8								
dynamic	1								
static	1								
Noise suppression	9								
50 Hz	1								
60 Hz	1								
Response time	10								
0...50 ms	1								
500 ms	1								

example for DIP switch setting
(with ACT20M tool software)



example for DIP switch setting
(with ACT20M tool software)