

ACT20M ACT20M-RTCI-CO-OLP-S

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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-RTCI-CO-OLP-S
Order No.	1435590000
Version	Temperature converter, 2-/3-/4- wire RTD, Thermocouple, Input : Temperature, Output : 4-20 mA
GTIN (EAN)	4050118240641
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	
Ambient temperature	-25 °C...+70 °C	Storage temperature	-40 °C...85 °C

Probability of failure

MTBF	207 Years
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Input

Number of inputs	1	Sensor	PT100 / 2-/3-/4-wire, Thermocouple acc. to IEC 584, type: J, Thermocouple acc. to IEC 584, type: K
Influence of the sensor cable resistance	< 0.002 Ω/Ω	Input measurement range	PT100 -200...+850 °C, Thermocouple type J -100...+1200°C, Thermocouple type K -200...+1370°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), min. measurement range 50°C (TC)

Output

Number of outputs	1	Output current	configurable, 4...20 mA, 20...4 mA
Wire break detection	3.5 mA / 23 mA / none	cold junction compensation	configurable internal or external cold- junction compensation (thermocouple)
Supply voltage	16,8 V...31,2 V		

General data

Accuracy	absolute accuracy: < ±0.05 % of the measurement range, RTD (PT100) Basic accuracy: < ±0.1 °C of the measurement range, TC (J,K) Basic accuracy: < ±0.5 °C of the measurement range	Cold-junction compensation error	±(2.0 °C + 0.4 °C x Δt) Δt = inside temperature - ambient temperature
Configuration	DIP switch	Galvanic isolation	2-way isolator
Mounting rail	TS 35	Power consumption, max.	0.8 W
Power consumption, typ.	0.48 W	Step response time	≤ 30 ms, < 300 ms
Supply voltage	Output loop powered, 6... 35 V	Temperature coefficient	RTD (PT100) ≤0.01 % of the measurement range/°C or 0.02 °C/°C, TC (J,K) 0.1 °C/°C

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