

AcuTEMS™ RM Series

Room Mount Temperature Sensor Datasheet



With a wall-mount design for indoor applications, the AcuTEMS RM features a four-way aspiration enclosure engineered to minimize self-heating and measure temperature accurately without disturbance. With multiple RTD, thermistor, and transmitter output options for various use cases. Optional LCD available when ordered with a transmitter option, providing temperature readings locally with unit indications.

Features

- Polycarbonate housing design for easy wall/surface mount or junction box.
- Protection against over-voltage, reverse polarity, and electromagnetic interference.
- 100Ω Platinum, 1KΩ Platinum/Nickel RTDs, and 10KΩ Type II/Type III, 20KΩ thermistors available.
- <10s response time ensuring swift feedback for building automation systems.
- Optional LCD with unit indication & 0.1°C (0.1°F) resolution.
- 4-20mA and 0-10VDC transmitters utilize high performance digital temperature sensor to ensure accurate measurement, fast response, and long-term stability.



Specifications

ELECTRICAL

Transmitter Power	16~28 VAC or 16~35 VDC
Transmitter Output	4~20mA (3 Wires) and 0~10VDC (3 Wires)
Output Load	≤500Ω (Current), ≥2KΩ (Voltage)

TEMPERATURE PERFORMANCE

Temperature Sensor Type	RTD or Thermistor, See Ordering Information
Temperature Transmitter Sensor Type	Digital
Transmitter Accuracy (If Applicable)	<±0.5°C @ 0~85°C (<±0.9°F @ 32~185°F)
Thermistor Accuracy (If Applicable)	10KΩ, Type III - ±0.3°C @ 25°C (±0.54°F @ 77°F) 10KΩ, Type II - ±0.2°C @ 25°C (±0.36°F @ 77°F) 20KΩ - ±0.2°C @ 25°C (±0.36°F @ 77°F)
RTD Accuracy (If Applicable)	1KΩ Platinum - ±0.2°C @ 25°C (±0.36°F @ 77°F) 100Ω Platinum - ±0.2°C @ 25°C (±0.36°F @ 77°F) 1KΩ Nickel - ±0.5°C @ 25°C (±0.9°F @ 77°F)
Temperature Transmitter Measurement Range	0~50°C (32~122°F)
Response Time	<10s

ENVIRONMENTAL

Sensor Operating Temperature Range	0~70°C (32~158°F) @ 0~95%RH (Non-Condensing)
Transmitter Operating Temperature Range	0~70°C (32~158°F) @ 0~95%RH (Non-Condensing)
Storage Temperature	-30~70°C (-22~158°F)

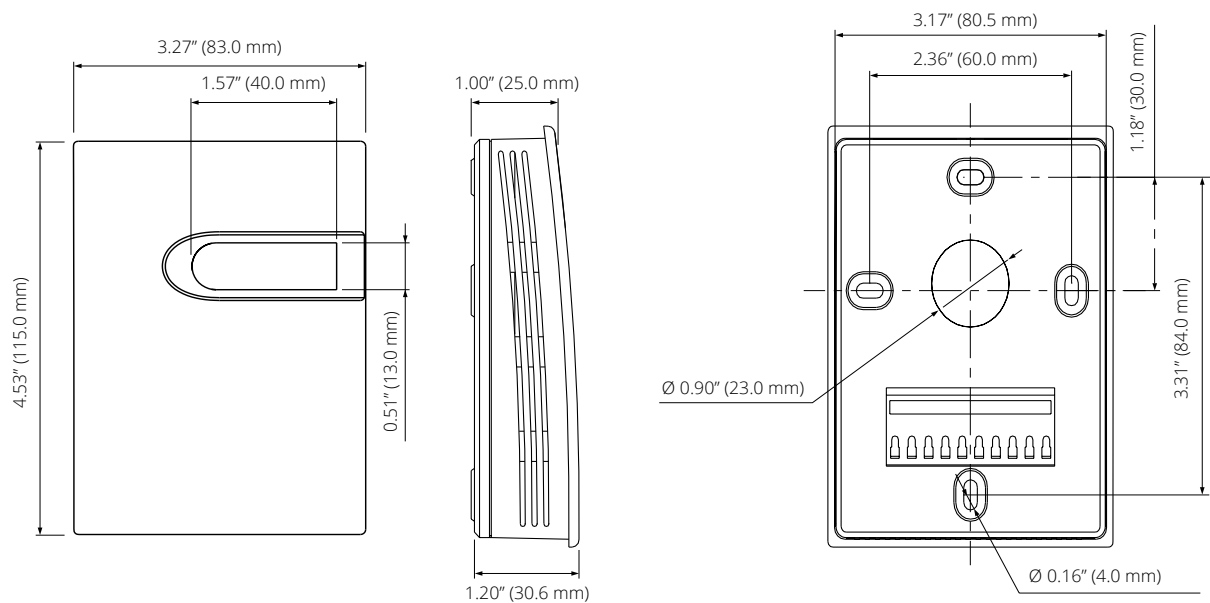
MECHANICAL

Mounting	Single Gang Junction Box or Surface Mount
Wiring Connection	Screw Terminal Blocks
Weight	165g (0.36lbs)
Display (Optional with Transmitter)	3-Digit LCD with Unit Indication
Display Resolution	0.1°C (0.1°F)

CERTIFICATIONS/WARRANTY

Enclosure Material	Fire Retardant Polycarbonate (UL94V-0)
Protection	IP30
Agency Approvals	CE
Warranty	5 Years

Dimensions



Ordering Information

+	Model	- Temperature Output	- Temperature Sensor	- Display (Transmitters Only)
	AcuTEMS-RM	A: Resistive Output (Thermistor or RTD)	01: 10KΩ, Type III Thermistor	C: No Display
			02: 10KΩ, Type II Thermistor	
			03: 20KΩ Thermistor	
			04: 1KΩ Platinum RTD	
			05: 100Ω Platinum RTD	
			06: 1KΩ Nickel RTD	
		B: 4-20 mA & 0-10 VDC Transmitter	07: Transmitter, 1KΩ Platinum RTD 0-50°C (32-122°F)	A: With Display, Fahrenheit
			08: Transmitter, 1KΩ Platinum RTD Special Order [†]	B: With Display, Celsius
				C: No Display

Ordering Example: AcuTEMS-RM-B-07-A

[†] Important: Special Order Span will increase lead times and may be subject to minimum order requirements.

Note: Selecting the "08 Transmitter, 1KΩ Platinum RTD Other Span" option allows the transmitter to be calibrated within a -40°C to +100°C (-40°F to 212°F) measurement range. The custom range must be specified at the time of ordering.