

AcuTEMS™ DM Series

Duct Mount Temperature Sensor Datasheet



The AcuTEMS DM series duct mount temperature sensor is the ideal solution for monitoring air temperature within ductwork. The sensor features multiple RTD, thermistor, and transmitter output options with different probe lengths, making it compatible with a variety of HVAC systems and BAS controllers to ensure the desired temperature is maintained. The temperature probe is secured with a 4-screw mounting flange with set screw, providing the flexibility of an adjustable probe depth when needed. The AcuTEMS DM comes with an IP65 enclosure providing superior moisture and dust protection.

Features

- Engineered for ductwork mounting with adjustable probe depth.
- Quick installation with push-in button terminal and quick-release enclosure screws.
- IP65 enclosure provides superior protection against dust and moisture ingress.
- 100Ω Platinum, 1KΩ Platinum/Nickel RTDs, and 10KΩ Type II/Type III, 20KΩ thermistors available.
- Three wire terminals provide flexibility for 2-wire or 3-wire installation for resistance temperature output.
- <10s response time delivering quick and reliable temperature measurement.
- 4-20mA and 0-10VDC output options for different BAS controllers and applications.



Specifications

ELECTRICAL

Transmitter Voltage Power	19.2~28.8 VAC or VDC
Transmitter Current Power	19.2~28.8 VDC (RL=500Ω); 8.5~35 VDC (RL=0Ω)
Transmitter Output	4~20mA (2 Wires) or 0~10VDC (3 Wires)
Output Load	≤500Ω (Current), ≥2KΩ (Voltage)

TEMPERATURE PERFORMANCE

Temperature Sensor Type	RTD or Thermistor, See Ordering Information
Transmitter Accuracy (If Applicable)	<±0.3°C @ 0~70°C (<±0.54°F @ 32~158°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) or 0~100°C (32~212°F)
Response Time	<10s

ENVIRONMENTAL

Operating Temperature Range	-40~70°C (-40~158°F) @ 0~95%RH (Non-Condensing)
Storage Temperature	-30~80°C (-22~176°F)

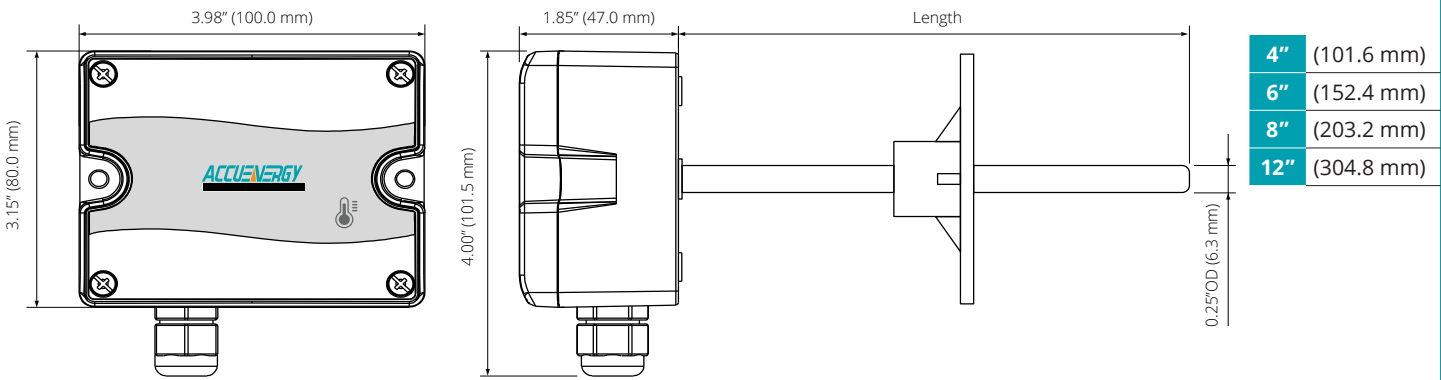
MECHANICAL

Mounting	4-Screw Duct Mount Flange with Adjustable Probe and Set Screw
Wiring Connection	Push Button Terminal Blocks (2 Wire or 3 Wire)
Weight	330g (0.73lbs)

CERTIFICATIONS/WARRANTY

Enclosure Material	Fire Retardant Polycarbonate (UL94V-0)
Protection	IP65
Agency Approvals	CE
Warranty	5 Years

Dimensions



Ordering Information

+	Model	- Temperature Output	- Temperature Sensor	- Probe Length	- Enclosure
	AcuTEMS-DM	A: Resistive Thermistor or RTD	01: 10KΩ, Type III Thermistor	A: 4" (101.6mm)	01: NEMA 4 Plastic (IP65)
			02: 10KΩ, Type II Thermistor	B: 6" (152.4mm)	
			03: 20KΩ Thermistor	C: 8" (203.2mm)	
			04: 1KΩ Platinum RTD	D: 12" (304.8mm)	
			05: 100Ω Platinum RTD	E: Special Order Length [†]	
			06: 1K Ni Ω Nickel RTD		
		B: 4-20 mA Transmitter	07: Transmitter, 1KΩ Platinum RTD 0-50°C (32-122°F)	A: 4" (101.6mm)	01: NEMA 4 Plastic (IP65)
		C: 0-10 VDC Transmitter	08: Transmitter, 1KΩ Platinum RTD 0-100°C (32-212°F)	B: 6" (152.4mm)	
			09: Transmitter, 1KΩ Platinum RTD Special Order [†]	C: 8" (203.2mm)	
				D: 12" (304.8mm)	
				E: Special Order Length [†]	
Ordering Example: AcuTEMS-DM-B-08-C-01					

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

Note: Selecting the "09 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.