

High Accuracy Bullet Probe | Thermistor

Bullet Probe, Thermistor



Automation Components
a DwyerOmega brand

The ACI High Accuracy Thermistor Bullet Probe Series features a 25.4 mm (1 in) stainless steel probe with two, 61 cm (24 in) 0.65 mm (22 AWG) Etched Teflon colored lead wires to differentiate the sensor types. All sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors as well as to increase the thermal response times using our high quality, thermally conductive epoxy. The bullet style sensor is designed to monitor air temperatures and should not be fully submerged in water. Optional wire and cable options or NIST Certificates are available as referenced in the ordering information on the back of the product data sheet.

Applications

Roof Top Units, Air Handlers, Discharge Air/Supply/Return/
Mixed Air Duct Temperature, Remote Temperature Sensing

Warranty

The ACI High Accuracy Thermistor Bullet Probe Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, workaci.com.

Specifications

Sensor Type: Thermistor

Sensor Curve: Non-Linear, NTC (Negative Temperature Coefficient)

Number Sensing Points: One

Number Wires: Two (Non-Polarity Sensitive)

Sensor Output @ 25 °C (77 °F) (Lead Wire Colors)

A/0.1AN Series (Type III): 10 k Ω nominal (White/Black)

A/0.1CP Series (Type III): 10 k Ω nominal (Green/Gray)

Accuracy from 0 °C to 70 °C (32 °F to 158 °F)¹: ± 0.1 °C (± 0.18 °F)

Power Dissipation Constant:

A/0.1AN Series: 2 mW / °C nominal

A/0.1CP Series: 1 mW / °C nominal

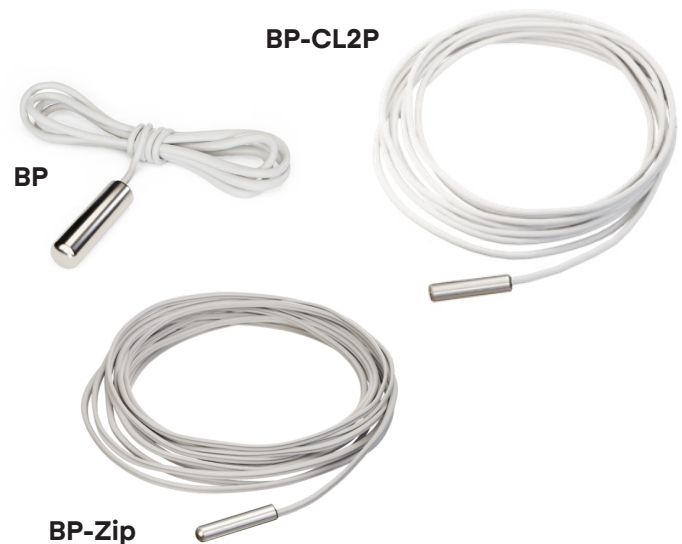
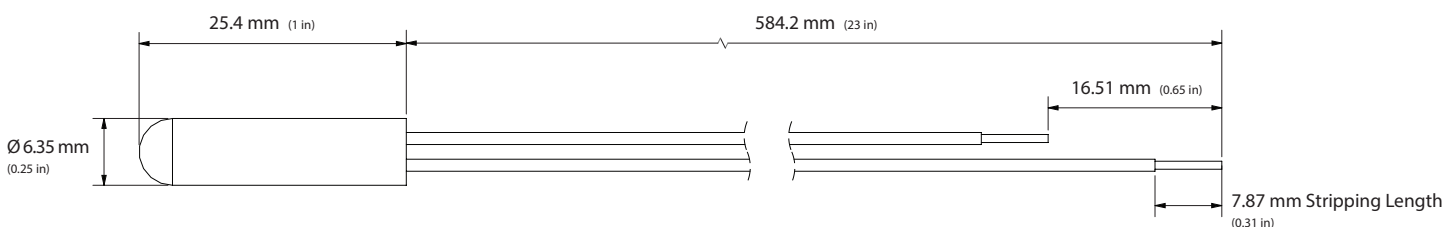
Stability²

A/0.1AN Series (5 Years): ± 0.127 °C (0.228 °F) at 100 °C (212 °F)

A/0.1CP Series (5 Years): ± 0.12 °C (0.216 °F) at 25 °C (77 °F)

(10 Years): ± 0.60 °C (1.08 °F) at 25 °C (77 °F)

Dimensions



Response Time (63 % Step Change): 10 seconds nominal

Probe Material: 304 Stainless Steel

Operating Temperature Range²: 0 °C to 70 °C (32 °F to 158 °F)

Storage Temperature Range¹: 0 °C to 70 °C (32 °F to 158 °F)

Operating Humidity Range: 10 % to 95% RH, non-condensing

NIST Certification: 3 Point NIST Certificate available

Lead Length: 61 cm (24 in)

Conductor Size: 0.65 mm (22 AWG)

Lead Wire Insulation Wire Rating: Etched Teflon Colored Leads I MIL-W-16878/4 (Type E)

Conductor Material: Silver Plated Copper

Product Dimensions (Length x Diameter): 25.4 mm (1 in) x 6.35 mm (0.25 in)

Product Weight: 9.07 g (0.02 lb)

Agency Approvals: CE, RoHS2, WEEE

Note¹: For best accuracy and long term stability the sensor should be used in applications where the operating temperatures remain within the specified operating temperature range of 0 °C to 70 °C (32 °F to 158 °F)

Note²: The sensor will operate over an extended operating temperature range of -40 °C to 150 °C (-40 °F to 302 °F) without damaging the sensor but the accuracy and long term stability will not meet the specifications on this data sheet.



Standard Ordering

Model #	Item #	Description
A/0.1AN-BP	143385	AN Bullet Probe, 10 kΩ (Type III), 25.4 mm (1 in) Probe 61 cm (2 ft) Lead
A/0.1CP-BP	143386	CP Bullet Probe, 10 kΩ (Type II), 25.4 mm (1 in) Probe 61 cm (2 ft) Lead

Model # Example: **A/0.1AN-BP** or **143385**

Optional Sensor Ordering

Options and Descriptions				Model #
A. Sensor Series <i>No Selection Required</i>	A/			A/
B. Model Series <i>Select One (1)</i>	0.1AN = 10000 (Type III)		0.1CP = 10000 (Type II)	
C. Configuration <i>No Selection Required</i>	BP = 25.4 mm (1 in) Stainless Steel Probe		BP	
D. Lead Length <i>Select One (1)</i>	6' = 1.83 m (6 ft)	10' = 3.05 m (10 ft)	20' = 6.10 m (20 ft)	
E. Lead Wire Type <i>Select One (1)</i>	CL2P = 2 Conductor FEP/FEP Plenum Rated Cable		Z = 6.10 m (20 ft) 2 Conductor White Zip Wire only	
F. NIST <i>Select One (1)</i>	---- = No NIST Certificate		NIST = NIST Certificate (3 Points)	

Model # Example: A/ 0.1AN BP 6' CL2P NIST
A. B. C. D. E. F.

Accessories Ordering

Model #	Item #	Description	Galvanized Metal	Plastic w/ Adhesive
A/MOUNTING CLIP-1/4"	143351	Hardware, 6.35 mm (1/4 in) Mounting Clip	•	
A/MOUNTING U-CLIP-1/4"	143352	Hardware, 6.35 mm (1/4 in) U-Mounting Clip Adhesive		•

Model # Example: **A/MOUNTING U-CLIP-1/4"** or 143352

