BULLET PROBE
1" Bullet Probe, Platinum RTD

BP

BP-CL2P

The ACI Platinum Bullet Probe Series features a one inch stainless steel probe with two or three, 24 inch, 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. Note that the three-wire "-3W" option should be ordered if using with a 3-Wire temperature transmitter or sensor configuration on your building management system or PLC (Programmable Logic Controller). The purpose of the 3rd wire is to compensate for any external lead wire resistance that will affect the accuracy of your sensors output signal. For best results, ACI recommends the use of 18 AWG lead wires to reduce the external lead wire resistance when using a Platinum RTD. The sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors and to increase the response time using our high quality, thermally conductive epoxy. The bullet style sensor is designed to be used to monitor air temperatures and should not be fully submerged in water. This series can be ordered with different wire options and NIST Certification as referenced in the Ordering Grid 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, Hydronic Systems

The ACI Platinum 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, www.workaci.com.
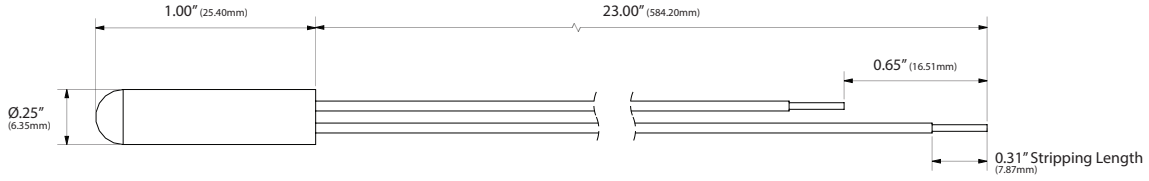
PRODUCT SPECIFICATIONS

**Sensor Type	Sensor Curve:**	Platinum RTD	PTC (Positive Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	**A/100-2W-BP Series** and **A/1K-2W-BP Series:** Two (Non-Polarity Sensitive)
	A/100-3W-BP Series and **A/1K-3W-BP Series:** Three (Polarity Sensitive)
Sensor Output @ 0ºC (32ºF):	**A/100-xW-BP Series:** 100 Ohms nominal	**A/1K-xW-BP Series:** 1000 Ohms nominal
Sensor Accuracy @ 0ºC (32ºF):	+/- 0.06% Class A (**Tolerance Formula:** +/- ºC = (0.15ºC + (0.002 * |t|))
	where |t| is the absolute value of Temperature above or below 0ºC in ºC)
	-40ºC (-40ºF): +/- 0.23ºC (+/- 0.414ºF)	**0ºC (32ºF):** +/- 0.15ºC (+/- 0.27ºF)
	200ºC (392ºF): +/- 0.55ºC (+/- 0.99ºF)
**Din Standard	Temperature Coefficient:**	DIN EN 60751 (IEC 751)	3850 ppm / ºC
Sensor Stability:	+/- 0.03% after 1000 Hours @ 300ºC (572ºF)
Response Time (63% Step Change):	8 Seconds nominal
**Self-Heating	Maximum Operating Current:**	**100 Ohm RTD:** 7 mW/ºC (Still Air)	5 mA
	1K Ohm RTD: 4mW/ºC (Still Air)	3 mA
**Operating	Storage Temperature Range:**	-40 to 200ºC (-40 to 392ºF)	-40 to 85ºC (-40 to 185ºF)
Operating Humidity Range:	10 to 95% RH, non-condensing
**Lead Length	Conductor Size:**	24" (61cm)	22 AWG (0.65mm)
**Lead Wire Insulation	Wire Rating:**	Etched Teflon Colored Leads	MIL-W-16878/4 (Type E)
Conductor Material:	Silver Plated Copper
Probe Material:	304 Stainless Steel
Product Dimensions (Length x Diameter):	1.00" (25.4mm) x 0.250" (6.35mm)
Product Weight:	0.02 lbs. (9.07g)
Agency Approvals:	CE, RoHS2, WEEE

DIMENSIONAL DRAWING

1.00" (25.40mm) 23.00" (584.20mm) 0.65" (16.51mm)

Ø.25" (6.35mm)

0.31" Stripping Length (7.87mm)

Standard View

STANDARD ORDERING

Model # Example: A/100-2W-BP -OR- 119937

Model #	Item #	Description
A/100-2W-BP	119937	100 Ohm RTD, 2 Wire, Bullet Probe, 24" (61.0 cm) Leads, 1" Probe, Brown/Brown Lead Wires
A/100-3W-BP	119993	100 Ohm RTD, 3 Wire, Bullet Probe, 24" (61.0 cm) Leads, 1" Probe, Brown/Brown/Black Lead Wires
A/1K-2W-BP	120262	1K Ohm RTD, 2 Wire, Bullet Probe, 24" (61.0 cm) Leads, 1" Probe, Black/Black Lead Wires
A/1K-3W-BP	120389	1K Ohm RTD, 3 Wire, Bullet Probe, 24" (61.0 cm) Leads, 1" Probe, Black/Black/White Lead Wires

OPTIONAL SENSOR ORDERING

Model # Example: A/ 100 3W BP 6'CL2P NIST / A. B. C. D. E. F.

MODEL #

A. Sensor Series *No Selection Required*	A/	**A/**
B. Model Series *Select One (1)*	**100** = 100 Ohm Platinum RTD │ **1K** = 1000 Ohm Platinum RTD	
C. Number of Wires *Select One (1)*	**2W** = Two Wires │ **3W** = Three Wires	
D. Configuration *No Selection Required*	**BP** = 1" Stainless Steel Probe	**BP**
E. Lead Wire Type *Select One (1)*	**----** = Standard 24" Etched PTFE Colored Leads **6'CL2P** = 6 ft (1.83m), 2 Conductor Plenum Rated Cable **10'CL2P** = 10 ft (3.05m), 2 Conductor Plenum Rated Cable **20'CL2P** = 20 ft (6.10m), 2 Conductor Plenum Rated Cable	
F. NIST *Select One (1)*	**----** = No NIST Certificate │ **NIST** = NIST Certificate (3 Points)	

ACCESSORIES ORDERING

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

Model #	Item #	Description	Galvanized Metal	Plastic w/ Adhesive
A/MOUNTING CLIP-1/4"	143351	Hardware, ¼" Mounting Clip	●	
A/MOUNTING U-CLIP-1/4"	143352	Hardware, ¼" U-Mounting Clip Adhesive		●