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. Please contact ACI for more information regarding this sensor or to discuss your application in further detail. Other options may be available upon request.

Applications: Roof Top Units, Air Handlers, Discharge Air/Supply/Return/Mixed Air Duct Temperature, Remote Temperature Sensing, Hydronic Systems
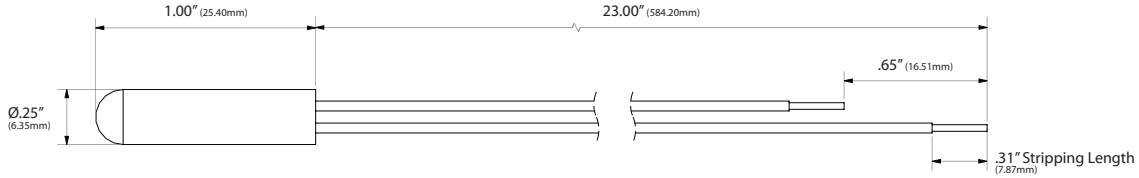
PRODUCT SPECIFICATIONS

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:	0.04 lbs. (18.15g)
Agency Approvals:	CE, RoHS2, WEEE

DIMENSIONAL DRAWING

1.00" (25.40mm)　　　　　23.00" (584.20mm)

.65" (16.51mm)

Ø.25" (6.35mm)

.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 20' CL2P NIST
　　　　　　　　　A. B. C. D. E. F. G.

		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 Length *Select One (1)*	**----** = Standard 24" Teflon Leads │ **10'** = 10 Feet (3.05m) │ **20'** = 20 Feet* (6.10m)	
F. Lead Wire Type *Select One (1)*	**----** = Standard 24" Teflon Leads │ **CL2P** = 2 or 3 Conductor Plenum Rated Cable	
G. NIST *Select One (1)*	**----** = No NIST Certificate │ **NIST** = NIST Certificate (Must Specify 1, 3 or 5 Points)	

Note*: All 20' Sensors are not CE compliant, but are RoHS2 compliant

ACCESSORIES ORDERING

Model # Example: HARDWARE, ¼" MOUNTING CLIP -OR- 108169

Model #	Item #	Description	Galvanized Metal	Plastic w/ Adhesive
HARDWARE, ¼" MOUNTING CLIP	108169	Hardware, ¼" Mounting Clip	●	
HARDWARE, ¼" U-MOUNTING CLIP	100090	Hardware, ¼" U-Mounting Clip Adhesive		●