



PROBE ONLY

Stainless Steel Probe, Platinum RTD



The ACI Platinum Probe Only Series features a 1/4" diameter stainless steel probe with two or three, 14 or 24 inch, 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. 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 your sensor output. ACI recommends the use of an 18 AWG lead wires to reduce the external lead wire resistance when using a Platinum RTD sensor. The sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture on the sensors and to increase the thermal response time using our high

quality, thermally conductive epoxy. The probe is designed to be used in duct and immersion applications when used with the proper length thermowell. Optional lead length, cable types and NIST Certificates are available as referenced in the ordering grid on the Product Data Sheet.

Applications: Roof Top Units, Air Handlers, Supply/Discharge Air/Return/Mixed/Exhaust Air Duct Temperature Sensing, Immersion Temperature Sensors, Replacement Temperature Sensors, Hydronic Water Systems

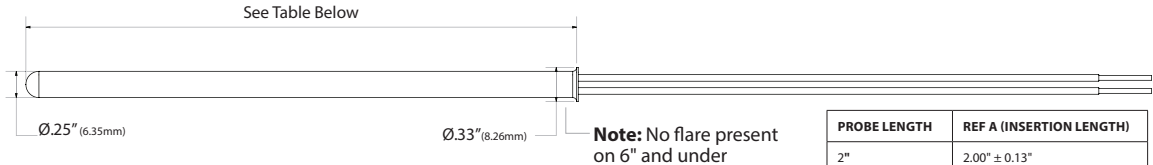
The ACI Platinum RTD Probe Only Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, workaci.com.

PRODUCT SPECIFICATIONS

Sensor Type Sensor Curve:	Platinum RTD PTC (Positive Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	A/100-2W-PO-XX" Series and A/1K-2W-PO-XX Series: Two (Non-Polarity Sensitive) A/1K-2W-PO-XX" Series and A/1K-3W-PO-XX Series: Three (Polarity Sensitive)
Sensor Output @ 0°C (32°F):	A/100-xW-PO Series: 100 Ohms nominal A/1K-xW-PO Series: 1000 Ohms nominal +/- 0.06% Class A (Tolerance Formula: +/- °C = (0.15°C + (0.002 * t)))
Sensor Accuracy @ 0°C (32°F):	where t is the absolute value of Temperature above or below 0°C in °C -40°C (-40°F): +/- 0.23°C (+/- 0.414°F) 0°C (32°F): +/- 0.15°C (+/- 0.27°F) 200°C (392°F): +/- 0.55°C (+/- 0.99°F)
Din Standard Temperature Coefficient:	DIN EN 60751 (IEC 751) 3850 ppm / °C
Sensor Stability:	+/- 0.03% after 1000 Hours @ 300°C (572°F)
Response Time (63% Step Change):	8 Seconds nominal
Self-Heating Maximum Operating Current:	100 Ohm RTD: 7 mW/°C (Still Air) 5 mA 1K Ohm RTD: 4mW/°C (Still Air) 3 mA
Operating Storage Temperature Range:	-40 to 200°C (-40 to 392°F) -40 to 85°C (-40 to 185°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Probe Material:	304 Stainless Steel
Standard Wire	Lead Wire Insulation Wire Rating: Etched Teflon (PTFE) Colored Leads MIL-W-16878/4 (Type E)
	Temperature Rating: -55°C (-67°F) to 200°C (392°F)
	Conductor Material: Silver Plated Copper
	Rated Application: Suitable for Indoor and Outdoor (wet) location. Oil, Moisture, Acids, Oils and Moisture Resistant
Plenum Wire	Lead Length Conductor Size: 4", 6" and 8" Probes: 14" (35.6 cm) 12" and 18" Probes: 24" (61cm) 22 AWG (0.65mm)
	Lead Wire Insulation Wire Rating: CL2P: FEP (Fluorinated Ethylene Propylene) TYPE CL2P - TYPE CMP 22 AWG (UL), C(UL) FEP/FEP E130356 ROHS
	Temperature Rating: CL2P: -80°C (-112°F) to 150°C (302°F)
	Conductor Material: CL2P: Tinned Copper
Rated Application: CL2P: Suitable for Indoor and Outdoor (wet) locations. Oil, Gas, Sunlight, Abrasion Acid Resistant	
Product Dimensions Probe Diameter:	See table on back of product data sheet 0.250" (6.35mm)
Product Weight:	4" = 0.028 lbs. (12.7g) 6" = 0.036 lbs. (16.3g) 8" = 0.044 lbs. (20g) 12" = 0.066 lbs. (29.9g) 18" = 0.09 lbs. (40.8g)
Agency Approvals:	CE, RoHS2, WEEE



DIMENSIONAL DRAWING



PROBE LENGTH	REF A (INSERTION LENGTH)
2"	2.00" ± 0.13"
4"	4.00" ± 0.13"
6"	6.00" ± 0.13"
8"	8.00" ± 0.13"
12"	12.00" ± 0.25"
18"	18.00" ± 0.25"

Standard View

CUSTOM ORDERING

MODEL # EXAMPLE:

A/ 1K 2W PO 4" 6'CL2P NIST

MODEL #

A. Sensor Series¹ 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 Select One (1)	PO = Probe Only	PO
E. Probe Length Select One (1)	2" = 2" Probe 4" = 4" Probe 6" = 6" Probe 8" = 8" Probe 12" = 12" Probe 18" = 18" Probe	
F. Lead Wire Options Select One (1)	---- = Standard 14 or 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	
G. NIST Select One (1)	---- = No NIST Certificate NIST = NIST Certificate (3 Points)	

ACCESSORIES ORDERING

Model # Example: NSG HEAT TRANSFER PASTE 2OZ -OR- 102595

Model #	Item #	Description
NSG HEAT TRANSFER PASTE 2OZ	102595	Thermal Grease, 2 oz. Tube, Silicone Free, -40 to 320°F (-40 to 160°C)
NSG HEAT TRANSFER PASTE 16OZ	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390°F (-40 to 198°C)

