



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

**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 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, [www.workaci.com](http://www.workaci.com).**

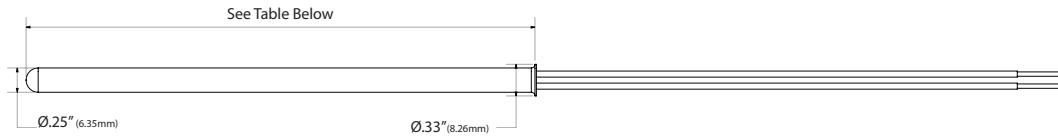
### PRODUCT SPECIFICATIONS

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





**DIMENSIONAL DRAWING**



Probe Length	Ref A (Insertion Length)
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"** **NIST**  
A. B. C. D. E. F.

**MODEL #**

<b>A. Sensor Series</b> <i>No Selection Required</i>	<b>A/</b> <input type="text"/>	<b>A/</b>
<b>B. Model Series</b> <i>Select One (1)</i>	<b>100</b> = 100 Ohm Platinum RTD   <b>1K</b> = 1000 Ohm Platinum RTD	
<b>C. Number of Wires</b> <i>Select One (1)</i>	<b>2W</b> = Two Wires   <b>3W</b> = Three Wires	
<b>D. Configuration</b> <i>No Selection Required</i>	<b>PO</b> = Probe Only <input type="text"/>	<b>PO</b>
<b>E. Probe Length</b> <i>Select One (1)</i>	<b>4"</b> = 4" Probe   <b>6"</b> = 6" Probe   <b>8"</b> = 8" Probe   <b>12"</b> = 12" Probe   <b>18"</b> = 18" Probe	
<b>F. NIST</b> <i>Select One (1)</i>	---- = No NIST Certificate   <b>NIST</b> = NIST Certificate (Must Specify 1, 3 or 5 Points)	

**ACCESSORIES ORDERING**

Model # Example: **FITTING, 316 HIGH TEMP DUCT** -OR- **100391**

Model #	Item #	Description	Bore	Thread Size
<b>FITTING, BRASS, HIGH TEMP DUCT</b>	137313	Fitting, Brass, Compression, Duct	0.255"	1/8"-27 MNPT
<b>FITTING, 316 HIGH TEMP DUCT</b>	100391	Fitting, 316SS, Compression, Duct	0.255"	1/8"-27 MNPT
<b>FITTING, 1/2" NPT, BRASS 1/4"</b>	130342	Fitting, Brass, Compression, Immersion	0.255"	1/2"-14 MNPT
<b>FITTING, 316 HT IMMERSION</b>	100392	Fitting, 316SS, Compression, Immersion	0.255"	1/2"-14 MNPT
<b>NSG HEAT TRANSFER PASTE 2OZ</b>	102595	Thermal Grease, 2 oz. Tube, Silicone Free, -40 to 320°F (-40 to 160°C)	N/A**	N/A**
<b>NSG HEAT TRANSFER PASTE 16OZ</b>	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390°F (-40 to 198°C)	N/A**	N/A**

Note\*\*: N/A denotes that it isn't applicable for these parts

