



# PROBE ONLY

## Stainless Steel Probe, Thermistor



The ACI Thermistor Probe Only Series features a 1/4" diameter stainless steel probe with two, 14" or 24 inch 22 AWG Etched Teflon colored lead wires to differentiate the different NTC sensor types. 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 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 lengths, 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.

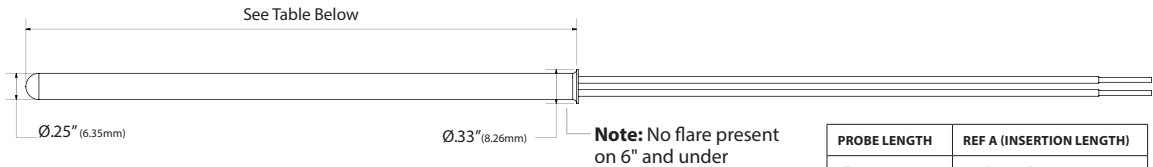
**The ACI Thermistor Probe Only Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [workaci.com](http://workaci.com).**

### PRODUCT SPECIFICATIONS

|   |   |
|---|---|
| <b>Sensor Type:</b>   | Thermistor  |
| <b>Sensor Curve:</b>  | Non-Linear NTC (Negative Temperature Coefficient)   |
| <b>Number Sensing Points:</b>   | One   |
| <b>Number Wires:</b>  | Two (Non-Polarity Sensitive)  |
| <b>Sensor Output @ 25°C (77°F)   (Standard Lead Wire Colors):</b>   | <b>A/1.8K:</b> 1.8KΩ nominal   (Red/Yellow)   |
|   | <b>A/3K:</b> 3KΩ nominal   (White/Brown)  |
|   | <b>A/AN (Type III):</b> 10KΩ nominal   (White/White)  |
|   | <b>A/AN-BC:</b> 5.238KΩ nominal   (White/Yellow)  |
|   | <b>A/CP (Type II):</b> 10KΩ nominal   (White/Green)   |
|   | <b>A/CSI:</b> 10KΩ nominal   (Green/Yellow)   |
|   | <b>A/10KS:</b> 10KΩ nominal   (White/Blue)  |
|   | <b>A/10K-E1:</b> 10KΩ nominal   (Gray/Orange)   |
|   | <b>A/20K:</b> 20KΩ nominal   (Brown/Blue)   |
|   | <b>A/50K:</b> 50KΩ nominal   (Brown/Yellow)   |
|   | <b>A/100KS:</b> 100KΩ nominal   (Black/Yellow)  |
| <b>Accuracy 0-70°C (32-158°F):</b>  | +/-0.2°C (+/-0.36°F) except <b>A/10K-E1 Series:</b> +/- 0.3°C (+/-0.54°F)<br><b>A/1.8K Series:</b> +/- 0.5°C @ 25°C (77°F) and (+/-1.0°C) (+/-1.8°F)              |
| <b>Stability:</b>   | Sensor Dependent; Contact ACI for more information on the sensor in question.   |
| <b>Response Time (63% Step Change):</b>   | 10 Seconds nominal  |
| <b>Power Dissipation Constant:</b>  | 3 mW/°C except <b>A/1.8K Series:</b> 1 mW/°C   <b>A/10K-E1 Series:</b> 2 mW/°C  |
| <b>Operating Temperature Range:</b>   | -40 to 150°C (-40 to 302°F)   |
| <b>Storage Temperature Range:</b>   | -40 to 85°C (-40 to 185°F)  |
| <b>Operating Humidity Range:</b>  | 10 to 95% RH, non-condensing  |
| <b>Probe Material:</b>  | 304 Stainless Steel   |
| <b>Standard Wire</b>  | <b>Lead Wire Insulation   Wire Rating:</b> Etched Teflon (PTFE) Colored Leads   MIL-W-16878/4 (Type E)  |
|   | <b>Temperature Rating:</b> -55°C (-67°F) to 200°C (392°F)   |
|   | <b>Conductor Material:</b> Silver Plated Copper   |
|   | <b>Rated Application:</b> Suitable for Indoor and Outdoor (wet) location. Oil, Moisture, Acids, Oils and Moisture Resistant                                       |
|   | <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>Plenum Wire</b>  | <b>Lead Wire Insulation   Wire Rating:</b> <b>CL2P:</b> FEP (Fluorinated Ethylene Propylene)   TYPE CL2P - TYPE CMP 22 AWG (UL), C(UL) FEP/FEP E1 30356 ROHS      |
|   | <b>Temperature Rating:</b> <b>CL2P:</b> -80°C (-112°F) to 150°C (302°F)   |
|   | <b>Conductor Material:</b> <b>CL2P:</b> Tinned Copper   |
| <b>Rated Application:</b> <b>CL2P:</b> Suitable for Indoor and Outdoor (wet) locations. Oil, Gas, Sunlight, Abrasion Acid Resistant |   |
| <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) |
|--------------|--------------------------|
| 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/** | **1.8K** | **PO** | **4"** | **6'CL2P** | **NIST**

**MODEL #**

|   |  |           |
|---|--|-----------|
| <b>A. Sensor Series<sup>1</sup></b> No Selection Required | <b>A/</b> →  | <b>A/</b> |
| <b>B. Model Series</b> Select One (1)                     | <b>1.8K</b>   <b>3K</b>   <b>AN</b>   <b>AN-BC</b>   <b>CP</b>   <b>CSI</b>   <b>10KS</b>   <b>10K-E1</b>   <b>20K</b>   <b>50K</b>   <b>100KS</b>   |           |
| <b>C. Configuration</b> Select One (1)                    | <b>PO</b> = Probe Only →   | <b>PO</b> |
| <b>D. Probe Length</b> Select One (1)                     | <b>2"</b> = 2" Probe   <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>E. Lead Wire Options</b> Select One (1)                | ---- = Standard 14 or 24" Etched PTFE Colored Leads<br>6'CL2P = 6 ft (1.83m), 2 Conductor Plenum Rated Cable<br>10'CL2P = 10 ft (3.05m), 2 Conductor Plenum Rated Cable<br>20'CL2P = 20 ft (6.10m), 2 Conductor Plenum Rated Cable |           |
| <b>F. NIST</b> Select One (1)                             | ---- = No NIST Certificate   <b>NIST</b> = NIST Certificate (3 Points)   |           |

**ACCESSORIES ORDERING**

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

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

