



TEMPERATURE PROBE

Connection Head Probe



The ACI Connection Head Probe 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 sensor types. ACI offers the probe with double ended 1/2 Inch NPT Threaded connections. This provides connections to existing service entry boxes. 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.

Applications: Roof Top Units, Air Handlers, Supply/Discharge Air/Return/Mixed/Exhaust Air Duct Temperature Sensing, Immersion Temperature Sensors(used with thermowells), Replacement Temperature Sensors.

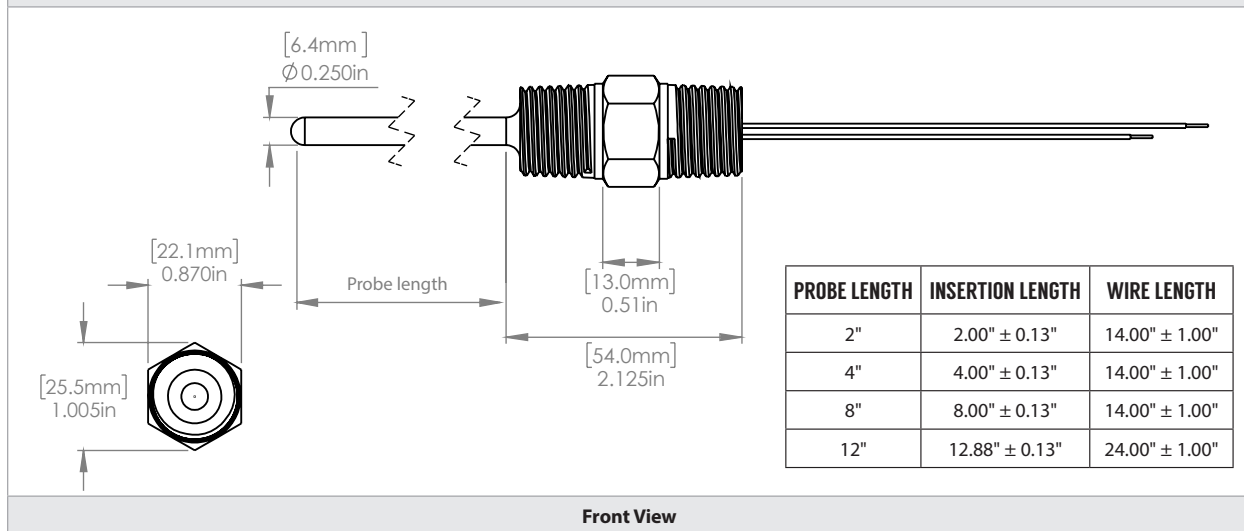
The ACI Connection Head Probe Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, workaci.com.

PRODUCT SPECIFICATIONS

Platinum RTD Probe	Sensor Type Curve Type Sensing Points:	Platinum RTD PTC (Positive Temperature Coefficient) One		
	Number Wires:	A/100/1K-2W-PO-4": Two (Non-Polarity Sensitive) A/100/1K-3W-PO-4": Three (Polarity Sensitive)		
	RTD Sensor Output @ 0°C (32°F):	A/100-xW-PO-4": 100 Ohms nominal A/1K-xW-PO-4": 1000 Ohms nominal		
	RTD Sensor Accuracy:	+/- 0.06% Class A (Tolerance Formula: +/- °C = (0.15°C + (0.002 * t)) 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) 120°C (248°F): +/-0.39°C (+/-0.71°F)		
	Din Standard Temperature Coefficient:	Din EN 60751 (IEC 751) 3850 ppm / °C		
	Sensor Stability:	+/- 0.03% after 1000 Hours @ 300°C (572°F)		
	Self-Heating Maximum Operating Current:	100 Ohm RTD: 7 mW/°C (Still Air) 5 mA; 1K Ohm RTD: 4mW/°C (Still Air) 3 mA		
Nickel RTD Probe	Sensor Type Curve Type Sensing Point:	Nickel RTD PTC (Positive Temperature Coefficient) One		
	Number Wires:	Two (Non-Polarity Sensitive)		
	Sensor Output @21.1°C (70°F):	1000 Ohms nominal		
	Sensor Accuracy:	-40°C (-40°F): +/-1.52°C (+/-2.73°F) 0°C (32°F): +/-0.4°C (+/-0.72°F) 21.1°C (70°F): +/-0.17°C (+/-0.34°F) 54.4°C (130°F): +/-0.56°C (+/-1.00°F) 121°C (250°F): +/-1.25°C (+/-2.25°F)		
	Din Standard Temp. Coefficient (0-100°C):	Din 43760 6370 ppm/°C		
	Sensor Stability:	+/- 0.05% after 1000 Hours @ 150°C (302°F)		
Thermistor Probe	Sensor Type Curve Type Sensing Points:	Thermistor NTC (Negative Temperature Coefficient) One		
	Thermistor Output @ 25°C (77°F):	A/1.8K: 1.8KΩ nom.	A/10KS: 10KΩ nom.	A/CP (Type II): 10KΩ nom.
		A/3K: 3KΩ nom.	A/100KS: 100KΩ nom.	A/AN-BC: 5.238KΩ nom.
		A/AN (Type III): 10KΩ nom.	A/20K: 20KΩ nom.	A/CSI: 10KΩ nom.
	Thermistor Accuracy 0-70°C (32-158°F):	+/-0.2°C (+/-0.36°F) A/1.8K: +/-0.5°C @ 25°C (77°F) & (+/-1.0°C) (+/-1.8°F)		
Stability:	Sensor Dependent; Contact ACI for more information on the sensor in question			
Power Dissipation Constant:	3 mW/°C except A/1.8K: 1 mW/°C			
General Specs	Response Time (63% Step Change):	10 Seconds Nominal		
	Operating Storage Temperature Range:	-40 to 150°C (-40 to 302°F) -40 to 85°C (-40 to 185°F)		
	Operating Humidity Range:	10 to 95% RH, condensing		
	Lead Length Conductor Size	2", 4", and 8" Probes: 14" (35.6 cm) 12" Probes: 24" (61 cm) 22 AWG (0.65 mm)		
	Lead Wire Insulation Wire Rating:	Etched Teflon (PTFE) Colored Leads Mil Spec 16878/4 Type E)		
	Probe Material Probe Diameter:	304 Stainless Steel 0.250" (6.35mm)		
	Process Threads:	1/2" NPT (National Pipe Tapered) Male Thread		
	Product Dimensions:	See Table on back of Product Data Sheet		
	Product Weight:	A/xx-PO-2" = 0.284 lbs. (129g), A/xx-PO-4" = 0.302 lbs. (137g), A/xx-PO-8" = 0.337 lbs. (153g), A/xx-PO-12" = 0.357 lbs (162g)		
	Agency Approvals:	UKCA, CE, RoHS2, WEEE,		



DIMENSIONAL DRAWING



CUSTOM ORDERING

Model # Example: **A/ 100 3W PO 4" CHP NIST**
A. B. C. D. E. F. G.

MODEL #

A. Sensor Series <i>No Selection Required</i>	A/ _____ →	A/
B. Model Series <i>Select One (1)</i>	100 = 100 Ohm Platinum RTD 1K = 1000 Ohm Platinum RTD 1K-NI = 1000 Ohm Nickel RTD 1.8K = 1.8K Ohm Thermistor 3K = 3K Ohm Thermistor AN = 10K (Type III) Ohm Thermistor AN-BC = 10K Thermistor Ohm 11K Shunt CP = 10K (Type II) Ohm Thermistor CSI = 10K Ohm Thermistor 10KS = 10K Ohm Thermistor 20K = 20K Ohm Thermistor 100KS = 100K Ohm Thermistor	
C. Number of Wires <i>Select One (1)</i>	---- = Any Thermistor/Nickel Sensor 2W = Two Wire (100/1K RTD only) 3W = Three Wire (100/1K RTD Only)	
D. Configuration <i>No Selection Required</i>	PO = Probe Only _____ →	PO
E. Probe Length <i>No Selection Required</i>	2" = 2" Probe 4" = 4" Probe 8" = 8" Probe 12" = 12" Probe	
F. Configuration <i>No Selection Required</i>	CHP = Connection Head Probe(Dual 1/2" NPT)	CHP
G. NIST <i>Select One (1)</i>	---- = No NIST Certificate NIST = NIST Certificate (3 Points)	

