

Automation Components, Inc.

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### TEMPERATURE | THERMISTORS | PIPE MOUNT



## **PIPE MOUNT** Small Pipe/Coil Sensor, Thermistor

The ACI Thermistor Pipe Mount Series features a 1.1" long Brass probe with a small curvature on the bottom that is designed to increase the surface area and improve the thermal conductivity between the pipe and the sensor. Each sensor has two, 24 inch 22 AWG Etched Teflon colored lead wires to differentiate the many different sensor types. All sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors and to improve the thermal response times using our high quality, thermally conductive epoxy. The Pipe Mount sensor should be used to monitor pipe or coil sizes from 1/2" to 1" in diameter. A 7.5" nylon wire tie is supplied for fastening the sensor to the top of the pipe. For best accuracy and increased thermal conduction between the pipe and

sensor, ACI recommends to clean the pipe and to apply thermal grease between the sensor and pipe before securely fastening to the pipe and insulating the sensor from any effects of the ambient air. An optional Plenum rated cable, Zip wire or NIST Certificate are available as referenced in the ordering grid on the back of the Product Data Sheet.

Applications: Cooling Coils, Heating Coils, Hot Water Systems, Chilled Water Systems, Hydronic Heating Systems, Chillers

The ACI Thermistor Pipe Mount 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.

#### **PRODUCT SPECIFICATIONS**

Sensor Type   Sensor Curve:	Thermistor   Non-Linear, NTC (Negative Tempera	ature Coefficient)	
Number Sensing Points:	One		
Number Wires:	Two (Non-Polarity Sensitive)		
Sensor Output @ 25°C (77°F)	<b>Α/1.8K:</b> 1.8KΩ nominal   (Red/Yellow)	<b>A/10KS:</b> 10KΩ nominal   (White/Blue)	
(Lead Wire Colors):	<b>Α/3Κ:</b> 3KΩ nominal   (White/Brown)	A/10K-E1: 10KΩ nominal   (Gray/Orange)	
	<b>A/AN (Type III):</b> 10KΩ nominal   (White/White)	A/20K: 20KΩ nominal   (Brown/Blue)	
	A/AN-BC: 5.238KΩ nominal   (White/Yellow)	A/50K: 50KΩ nominal   (Brown/Yellow)	
	<b>A/CP (Type II):</b> 10KΩ nominal   (White/Green)	A/100KS: 100KΩ nominal   (Black/Yellow)	
	<b>A/CSI:</b> 10KΩ nominal   (Green/Yellow)		
Sensor Accuracy 0-70°C (32-158°F):	+/-0.2°C (+/-0.36°F) except <b>A/10K-E1 Series:</b> +/-0.3°C (+/-0.54°F);		
	A/1.8K Series: +/- 0.5°C @ 25°C (77°F) and (+/-1.0°C) (+/-1.8°F)		
Power Dissipation Constant:	3 mW/°C except <b>A/1.8K Series:</b> 1 mW/°C   <b>A/10K-E1 Series:</b> 2 mW/°C		
Stability:	Sensor Dependent; Contact ACI for more information on the sensor in question.		
Response Time (63% Step Change):	20 Seconds nominal		
Pipe Mount Sensor Enclosure Material:	Brass		
Pipe Sizes Acceptable:	½" (12.7mm) to 1" (25.4mm)		
Operating Temperature Range:	-40 to 150°C (-40 to 302°F)		
Storage Temperature Range:	-40 to 85°C (-40 to 185°F)		
Operating Humidity Range:	10 to 95% RH, Condensing		
Lead Length   Conductor Size:	24" (61cm)   22 AWG (0.65mm)		
Lead Wire Insulation   Wire Rating:	Etched Teflon (PTFE) Colored Leads   MIL-W-16878/4 (Type E)		
Conductor Material:	Silver Plated Copper		
Product Dimensions (Length x Diameter):	1.10″ (27.9mm) x 0.375″ (9.53mm)		
Product Weight:	0.05 lbs. (22.68g)		
Agency Approvals:	CE, RoHS2, WEEE		

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STANDARD ORDERING Model # Example: A/AN-PM - OR- 1386				
Model #	ltem #	Description		
A/1.8K-PM	138644	1.8K Pipe Mount, 24" Leads		
A/3K-PM	138659	3K Pipe Mount, 24" Leads		
A/AN-PM	138628	AN (Type III) Pipe Mount, 24" Leads		
A/AN-BC-PM	138996	AN-BC Pipe Mount, 24" Leads, 11K Shunt		
A/CP-PM	138629	CP (Type II) Pipe Mount, 24" Leads		
A/CSI-PM	138662	CSI Pipe Mount, 24" Leads		
A/10KS-PM	142395	10KS Pipe Mount, 24" Leads		
A/10K-E1-PM	138655	10K-E1 Pipe Mount, 24" Leads		
A/20K-PM	138631	20K Pipe Mount, 24" Leads		
A/100KS-PM	138654	100KS Pipe Mount, 24" Leads		

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UPTIUNAL SENSUR URDERING A. B. C. D. E. R.		
A. Sensor Series No Selection Required	A/	<b>A</b> /
B. Model Series Select One (1)	1.8K   3K   AN   AN-BC   CP   CSI   10KS   10K-E1   20K   50K   100KS	
C. Configuration No Selection Required	guration No Selection Required PM = 1.1" Brass Pipe Mount Sensor	
D. Lead Length Select One (1) = Standard (24" Etched Teflon)   10' = 10 Feet (3.05m)   20' = 20 Feet* (6.10m)		
<b>E. Lead Wire Type</b> <i>Select One (1)</i> <b>CL2P</b> = Plenum Rated Cable   <b>Z</b> = 2 Conductor White Zip Wire		
F. NIST Select One (1)	= No NIST Certificate   <b>NIST</b> = NIST Certificate (3 Points)	

Note\*: The 20' Length is not CE Compliant but it is RoHS Compliant

ACCESSORIES ORDERING		Model # Example: HARDWARE, 2" HOSE CLAMP -OR- 100235
Model #	ltem #	Description
HARDWARE, 2" HOSE CLAMP	100235	Hardware, 2" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
NSG HEAT TRANSFER PASTE 20Z	102595	Thermal Grease, 2 oz. Tube, Silicone Free, -40 to 320°F (-40 to 160°C)
NSG HEAT TRANSFER PASTE 160Z	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390°F (-40 to 198°C)