



# STRAP ON

## Non-Intrusive Pipe Mount, Thermistor

The ACI Thermistor Strap-On Series features a 1.5" square copper plate with the sensor encapsulated to the back side of the plate to improve the thermal conductivity between the pipe and the sensor when an Immersion style sensor can't be inserted into the pipe. Each sensor has two, 14 inch 22 AWG Etched Teflon colored lead wires to differentiate the different 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 as well as to improve the thermal response times using our high quality, thermally conductive epoxy. The Strap-On Series sensors can be used to monitor pipe sizes from 1 1/4" to 10" in diameter. For best accuracy and increased thermal conduction between the pipe and the sensor, ACI

recommends to clean the pipe before applying thermal grease as well as to insulate the sensor from the effects of the ambient air. Optional weather proof enclosure and NIST certificates are available upon request.

**Applications:** Cold Water Systems, Hot Water Systems, Retrofit, Hydronic Heating Systems, Chillers

**The ACI Thermistor Strap-On 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

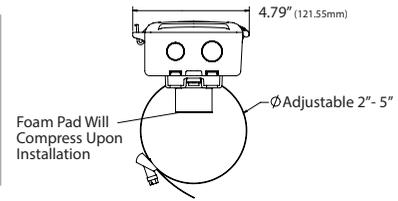
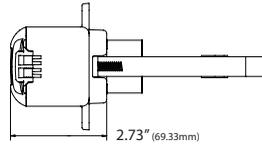
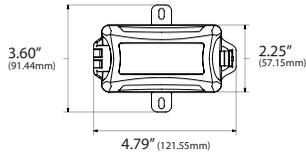
<b>Sensor Type   Sensor Curve:</b>	Thermistor   Non-Linear, NTC (Negative Temperature Coefficient)	
<b>Number Sensing Points:</b>	One	
<b>Number Wires:</b>	Two (Non-Polarity Sensitive)	
<b>Sensor Series Output @ 25°C (77°F)   (Lead Wire Colors):</b>	<b>A/1.8K:</b> 1.8KΩ nominal   (Red/Yellow)	<b>A/10KS:</b> 10KΩ nominal   (White/Blue)
	<b>A/3K:</b> 3KΩ nominal   (White/Brown)	<b>A/10K-E1:</b> 10KΩ nominal   (Gray/Orange)
	<b>A/AN (Type III):</b> 10KΩ nominal   (White/White)	<b>A/20K:</b> 20KΩ nominal   (Brown/Blue)
	<b>A/AN-BC:</b> 5.238KΩ nominal   (White/Yellow)	<b>A/50K:</b> 50KΩ nominal   (Brown/Yellow)
	<b>A/CP (Type II):</b> 10KΩ nominal   (White/Green)	<b>A/100KS:</b> 100KΩ nominal   (Black/Yellow)
	<b>A/CSI:</b> 10KΩ nominal   (Green/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); <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 specific sensor	
<b>Response Time (63% Step Change):</b>	30 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>Enclosure Specifications, Operating</b>	<b>A/XX-S-GD:</b> Galvanized Steel, -40 to 93°C (-40 to 200°F), NEMA 1 (IP 10)	
<b>Temperature Range, Ratings:</b>	<b>A/XX-S-PB:</b> ABS Plastic, -30 to 85°C (-22 to 185°F), UL94-HB, Plenum Rated	
	<b>A/XX-S-4X:</b> Polystyrene Plastic, -40 to 70°C (-40 to 158°F), UL94-V2, NEMA 4X (IP 66)	
<b>Storage Temperature Range:</b>	-40 to 80°C (-40 to 176°F)	
<b>Operating Humidity Range:</b>	10 to 95% RH, non-condensing	
<b>Pipe Mount Sensor Enclosure Material:</b>	14" (35.6cm)   22 AWG (0.65mm)	
<b>Acceptable Pipe Size:</b>	A/X-S-XX: 1 1/4" (32mm) to 4" (100mm); A/X-S10-XX: 2" (50mm) to 10" (250mm)	
<b>Foam Material   Flammability Rating:</b>	Neoprene/EPDM/SBR Polymer   UL94-HF1; MIL-R-6130C; FMVSS-302	
<b>Lead Length   Conductor Size:</b>	<b>A/XX-S-XX:</b> 14" (35.6cm)   <b>A/XX-S10-XX:</b> 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>Product Dimensions:</b>	See Drawing on Back of Data Sheet	
<b>Product Weight:</b>	<b>A/XX-S-GD:</b> 0.80 lbs. (0.37kg)   <b>A/XX-S-PB:</b> 0.40 lbs. (0.18kg)   <b>A/XX-S-4X:</b> 0.55 lbs. (0.25kg)	
<b>Agency Approvals:</b>	CE, RoHS2, WEEE	



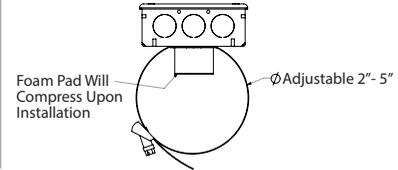
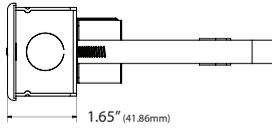
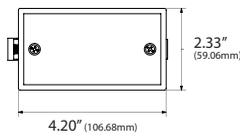


**DIMENSIONAL DRAWING**

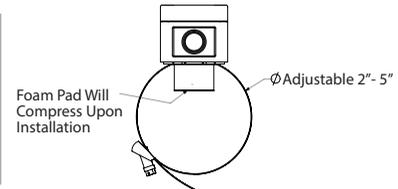
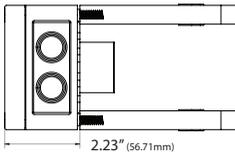
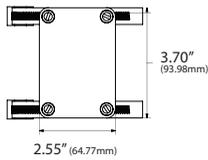
**Plastic Box Enclosure [PB]**



**Galvanized Enclosure [GD]**



**NEMA 4X Enclosure [4X]**



Front View

Right View

Top View

**CUSTOM ORDERING**

Model # Example: **A/ 1.8K S PB NIST**

**MODEL #**

<b>A. Sensor Series</b> No Selection Required	A/ <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;"></span>
<b>B. Model Series</b> Select One (1)	<b>1.8K   3K   AN   AN-BC   CP   CSI   10KS   10K-E1   20K   50K   100KS</b>
<b>C. Configuration</b> Select One (1)	<b>S = Strap-On (1.25" to 4" Pipe Size)   S10 = Strap-On (2" to 10" pipe size)</b>
<b>D. Enclosure</b> Select One (1)	<b>GD = Galvanized   PB = Plastic   4X = NEMA 4X Weather Proof</b>
<b>E. NIST</b> Select One (1)	<b>---- = No NIST Certificate   NIST = NIST Certificate (3 Points)</b>

<b>A/</b>

**ACCESSORIES ORDERING**

Model # Example: **A/HOSE CLAMP-2-12" -OR- 142631**

Model #	Item #	Description
<b>A/HOSE CLAMP-2-5"</b>	142630	Hardware, 2-5" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
<b>A/HOSE CLAMP-2-12"</b>	142631	Hardware, 2-12" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
<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)

