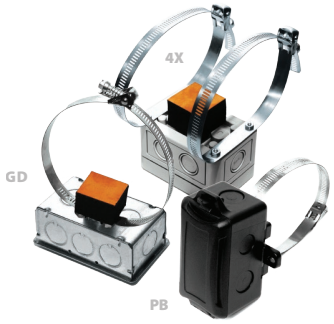


STRAP ON

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 ¼" 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.

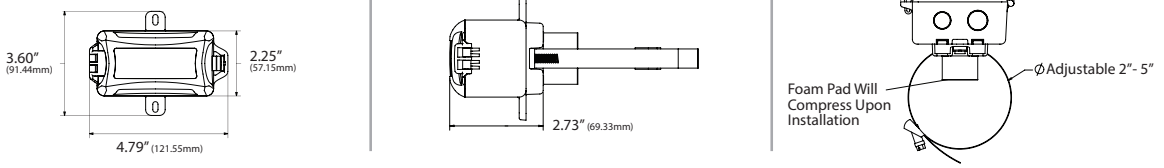
PRODUCT SPECIFICATIONS

Sensor Type | Sensor Curve:	Thermistor | Non-Linear, NTC (Negative Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	Two (Non-Polarity Sensitive)
Sensor Series Output @ 25°C (77°F) | (Lead Wire Colors):	**A/1.8K:** 1.8KΩ nominal | (Red/Yellow) **A/10KS:** 10KΩ nominal | (White/Blue) **A/3K:** 3KΩ nominal | (White/Brown) **A/10K-E1:** 10KΩ nominal | (Gray/Orange) **A/AN (Type III):** 10KΩ nominal | (White/White) **A/20K:** 20KΩ nominal | (Brown/Blue) **A/AN-BC:** 5.238KΩ nominal | (White/Yellow) **A/50K:** 50KΩ nominal | (Brown/Yellow) **A/CP (Type II):** 10KΩ nominal | (White/Green) **A/100KS:** 100KΩ nominal | (Black/Yellow) **A/CSI:** 10KΩ nominal | (Green/Yellow)
Accuracy 0-70°C (32-158°F):	+/-0.2°C (+/-0.36°F) except **A/10K-E1 Series:** +/-0.3°C (+/-0.54°F); **A/1.8K Series:** +/- 0.5°C @ 25°C (77°F) and (+/-1.0°C) (+/-1.8°F)
Stability:	Sensor Dependent; Contact ACI for more information on specific sensor
Response Time (63% Step Change):	30 Seconds nominal
Power Dissipation Constant:	3 mW/°C except **A/1.8K Series:** 1 mW/°C | **A/10K-E1 Series:** 2 mW/°C
Enclosure Specifications, Operating Temperature Range, Ratings:	**A/XX-S-GD:** Galvanized Steel, -40 to 93°C (-40 to 200°F), NEMA 1 (IP 10) **A/XX-S-PB:** ABS Plastic, -30 to 85°C (-22 to 185°F), UL94-HB, Plenum Rated **A/XX-S-4X:** Polystyrene Plastic, -40 to 70°C (-40 to 158°F), UL94-V2, NEMA 4X (IP 66)
Storage Temperature Range:	-40 to 80°C (-40 to 176°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Pipe Mount Sensor Enclosure Material:	14" (35.6cm) | 22 AWG (0.65mm)
Acceptable Pipe Size:	A/X-S-XX: 1 1/4" (32mm) to 4" (100mm); A/X-S10-XX: 2" (50mm) to 10" (250mm)
Foam Material | Flammability Rating:	Neoprene/EPDM/SBR Polymer | UL94-HF1; MIL-R-6130C; FMVSS-302
Lead Length | Conductor Size:	**A/XX-S-XX:** 14" (35.6cm) | **A/XX-S10-XX:** 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:	See Drawing on Back of Data Sheet
Product Weight:	**A/XX-S-GD:** 0.80 lbs. (0.37kg) | **A/XX-S-PB:** 0.40 lbs. (0.18kg) | **A/XX-S-4X:** 0.55 lbs. (0.25kg)
Agency Approvals:	CE, RoHS2, WEEE

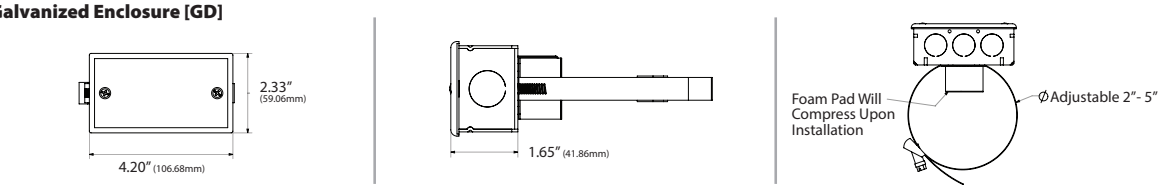
1.888.610.7664 www.calcert.com sales@calcert.com

DIMENSIONAL DRAWING

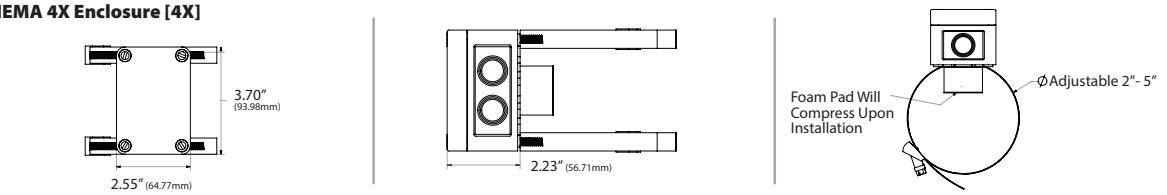
Plastic Box Enclosure [PB]



Galvanized Enclosure [GD]



NEMA 4X Enclosure [4X]



Front View | **Right View** | **Top View**

CUSTOM ORDERING

Model # Example: A/ (A.) | 1.8K (B.) | S (C.) | PB (D.) | NIST (E.)

		MODEL #
A. Sensor Series *No Selection Required*	**A/** →	**A/**
B. Model Series *Select One (1)*	**1.8K** | **3K** | **AN** | **AN-BC** | **CP** | **CSI** | **10KS** | **10K-E1** | **20K** | **50K** | **100KS**	
C. Configuration *Select One (1)*	**S** = Strap-On (1.25" to 4" Pipe Size) | **S10** = Strap-On (2" to 10" pipe size)	
D. Enclosure *Select One (1)*	**GD** = Galvanized | **PB** = Plastic | **4X** = NEMA 4X Weather Proof	
E. NIST *Select One (1)*	**----** = No NIST Certificate | **NIST** = NIST Certificate (3 Points)	

ACCESSORIES ORDERING

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

Model #	Item #	Description
A/HOSE CLAMP-2-5"	142630	Hardware, 2-5" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
A/HOSE CLAMP-2-12"	142631	Hardware, 2-12" Hose Clamp, Quick Release Worm Gear, 201/301 Stainless Steel
NSG HEAT TRANSFER PASTE 2OZ	102595	Thermal Grease, 2 oz. Tube, Silicone Free, -40 to 320ºF (-40 to 160ºC)
NSG HEAT TRANSFER PASTE 16OZ	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390ºF (-40 to 198ºC)