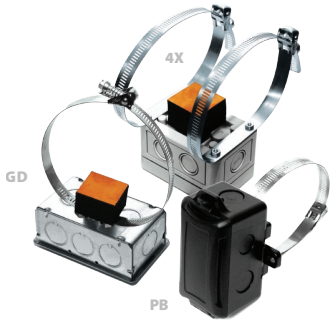


STRAP ON

Non-Intrusive Pipe Mount, Nickel RTD

The ACI Nickel 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 in a retrofit application. Each sensor has two, 14 inch 22 AWG Etched Teflon colored lead wires to differentiate the many 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 sensor, ACI recommends to clean the pipe before applying thermal grease and insulating the sensor from the effects of the ambient air. Optional Weather Proof enclosure and NIST Certificates are available as referenced in the ordering grid on the back of the Product Data Sheet. Please contact ACI for more information regarding this sensor or to discuss your application in further detail. Other Options may be available upon request.

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

The ACI Nickel 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.

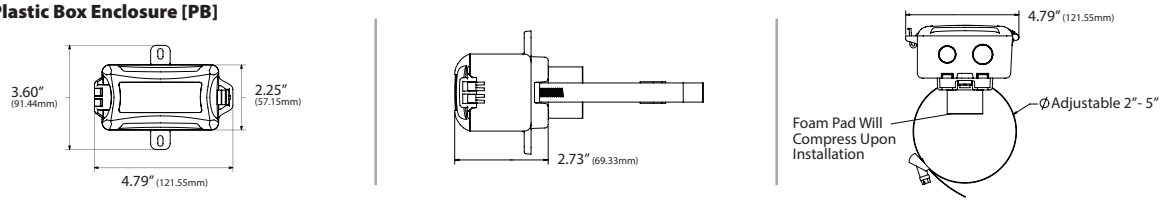
PRODUCT SPECIFICATIONS

Sensor Type | Sensor Curve:	Nickel RTD | PTC (Positive Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	Two (Non-Polarity Sensitive)
Sensor Output @ 21.1°C (70°F) (Lead Wire Colors):	1000 Ohms nominal | (Red/Red)
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 | Temperature Coefficient (0-100°C):	Din 43760 | 6370 ppm/°C
Sensor Stability:	+/- 0.05% after 1000 Hours @ 150°C (302°F)
Response Time (63% Step Change):	8 Seconds nominal
Self-Heating | Operating Current (Maximum):	0.3°C/mW (Still Air) | 5 mA
Enclosure Specifications (Operating Temperature Range, Flammability, NEMA/IP Rating):	**A/1K-NI-S-GD:** Galvanized Steel, -40 to 93°C (-40 to 200°F), NEMA 1 (IP 10) **A/1K-NI-PB:** ABS Plastic, -30 to 85°C (-22 to 185°F), UL94-HB, Plenum Rated **A/1K-NI-S-4X:** Polystyrene, -40 to 70°C (-40 to 158°F), UL94-V2, NEMA 4X (IP 66)
Storage Temperature Range:	-40 to 85°C (-40 to 185°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Acceptable Pipe Size:	**A/1K-NI-S-XX:** 1 1/4" (32mm) to 4" (100mm) | **A/1K-NI-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:	14" (35.6cm) | 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):	See Drawing on Back of Data Sheet
Product Weight:	**A/1K-NI-XX-GD:** 0.80 lbs. (0.37kg) | **A/1K-NI-XX-PB:** 0.40 lbs. (0.18kg); **A/1K-NI-XX-4X:** 0.55 lbs. (0.25kg)
Agency Approvals:	CE, RoHS2, WEEE

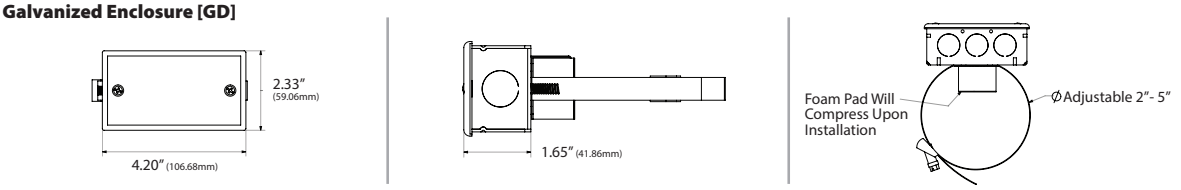
1.888.610.7664 www.calcert.com sales@calcert.com

DIMENSIONAL DRAWING

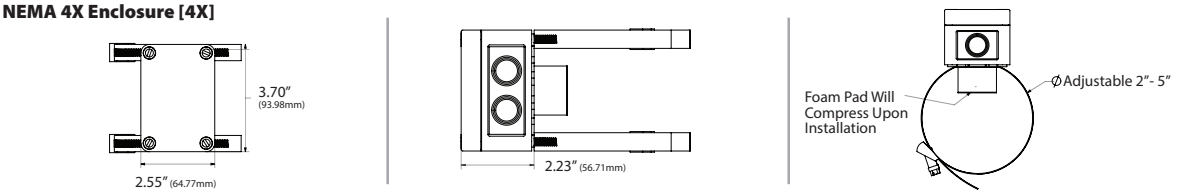
Plastic Box Enclosure [PB]



Galvanized Enclosure [GD]



NEMA 4X Enclosure [4X]



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

STANDARD ORDERING

Model # Example: A/1K-NI-S-GD -OR- 114893

Model #	Item #	Description
A/1K-NI-S-GD	114893	1K Nickel, Strap-On, 1 ¼" to 4" Pipe, Galvanized Enclosure, 24" Leads
A/1K-NI-S-PB	124206	1K Nickel, Strap-On, 1 ¼" to 4" Pipe, Plastic Enclosure, 24" Leads
A/1K-NI-S-4X	120547	1K Nickel, Strap-On, 1 ¼" to 4" Pipe, NEMA 4X Plastic Enclosure, 24" Leads

CUSTOM ORDERING

Model # Example: A/ (A.) | 1K-NI (B.) | S (C.) | PB (D.) | NIST (E.)

		MODEL #
A. Sensor Series *No Selection Required*	**A/** →	A/
B. Model Series *No Selection Required*	**1K-NI** →	1K-NI
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 320°F (-40 to 160°C)
NSG HEAT TRANSFER PASTE 16OZ	140574	Thermal Grease, 16 oz. Jar, Silicone Free, -40 to 390°F (-40 to 198°C)