FLEXIBLE AVERAGING

Multipoint Averaging Sensors, Nickel RTD

The ACI Nickel Flexible Averaging Series features an 18 AWG Plenum Rated cable sensing element with two, 12 inch 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. All sensors are manufactured with 4 or 9 sensing points determined by the length of the sensing element. Averaging sensors provide a better average temperature of the air inside larger ducts when compared to a single point sensor. The flexible averaging sensors are limited to applications where operating temperatures are limited to 0 to 75ºC (32 to 158ºF) or high humidity, chemical resistance and UV Light Air Treatment Systems aren't required. Each of the sensing elements is sealed using a dual wall adhesive lined heat shrink tubing to provide a level of moisture protection to each of the sensing elements. The sensor length should be determined by the dimensional size of your duct. Our standard enclosure options include a galvanized junction box "-GD" or plastic duct enclosure with hinged cover "-PB". Each unit includes nylon wire ties and mounts for standard mounting. Optional copper capillary or universal plastic mounting clips, NEMA/IP Rated weather proof enclosures and NIST Certificates are available as referenced in the ordering grid.

Applications: Air Handlers, Roof Top Units, Mixed Air/Discharge/Supply Air Temperature Monitoring, Data Centers, Hospitals

The ACI Nickel Flexible Averaging 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 | Number Wires:	**8' and 12' Lengths:** Four | **24' and 50' Lengths:** Nine | Two (Non-Polarity Sensitive)	
Sensor Output @ 21.1ºC (70ºF) | Lead Wire Colors:	1000 Ohms nominal | (Red/Red)	
Sensor Accuracy:	**8' and 12' Models:**	**24' and 50' Models:**
	+/- 0.23C (+/- 0.40ºF) @ 21.1ºC (70ºF)	+/- 0.24ºC (+/- 0.42ºF) @ 21.1ºC (70ºF)
	+/- 1.59ºC (+/- 1.06ºF) @ 54.4ºC (130ºF)	+/- 0.61ºC (+/- 1.09ºF) @ 54.4ºC (130ºF)
Din Standard | Temperature Coefficient (0-100ºC):	Din 43760 | 6370 ppm/ºC	
Sensor Stability:	+/- 0.05% after 1000 Hours @ 150ºC (302ºF)	
Response Time (63% Step Change):	15 Seconds nominal	
Self-Heating | Maximum Operating Current:	0.3ºC/mW (Still Air) | 5 mA	
Operating Temperature Range:	0 to 75ºC (32 to 167ºF)	
Storage Temperature Range:	-20 to 75ºC (-4 to 167ºF)	
Operating Humidity Range:	10 to 90% RH, non-condensing	
Enclosure Specifications (Material, Flammability, NEMA | IP Ratings):	**"-GD" Enclosure:** Galvanized Steel; NEMA 1 (IP10); **"-PB" Enclosure:** ABS Plastic, UL94-HB; Plenum Rated **"-BB" Enclosure:** Aluminum; NEMA 3R (IP 14) **"-4X" Enclosure:** Polystyrene Plastic; UL94-V2; NEMA 4X (IP 66)	
Sensor Jacket Material | Cable Ratings:	Low Smoke PVC | CL2P or CMP Plenum Rated Cable	
Sensor Cable Diameter:	0.170" (4.32mm) nominal	
Lead Length | Conductor Size:	12" (30.5cm) | 22 AWG (0.65mm)	
Lead Wire Insulation | Wire Rating:	Etched Teflon (PTFE) Colored Leads | MIL-W-16878/4 (Type E)	
Lead Wire Conductor Material:	Silver Plated Copper	
Product Dimensions | Product Weight:	See table on back of Product Data sheet	
Agency Approvals:	RoHS2, WEEE	

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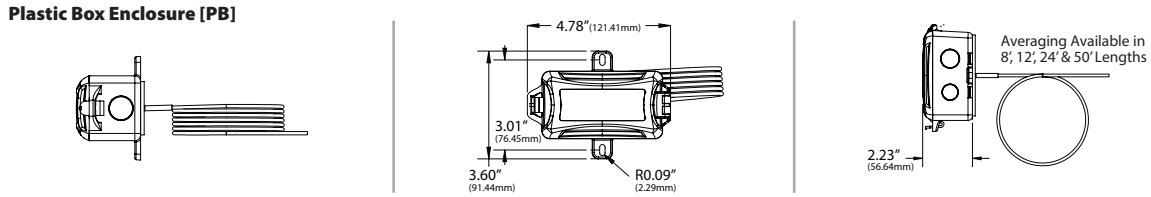
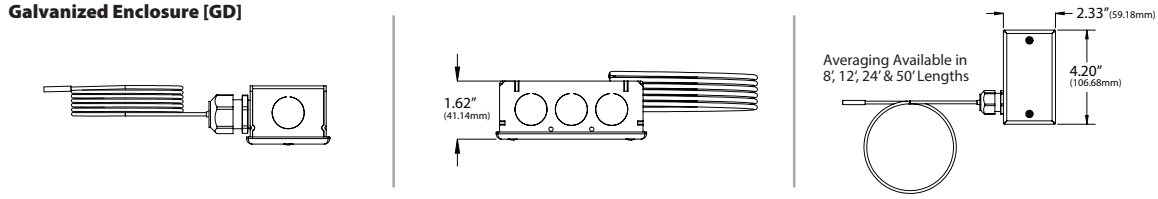
DIMENSIONAL DRAWING

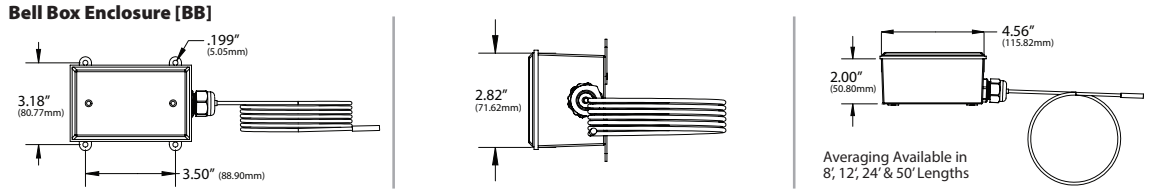
Plastic Box Enclosure [PB]



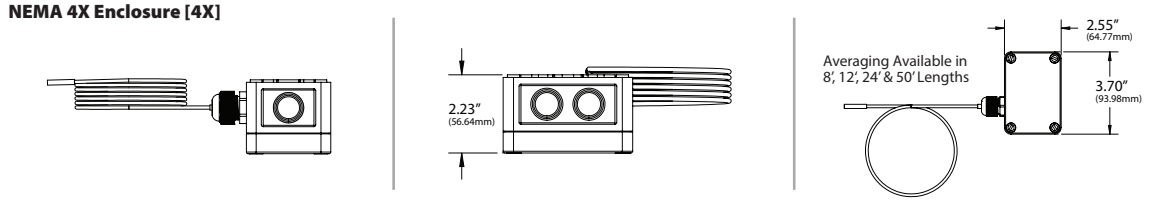
Galvanized Enclosure [GD]



Bell Box Enclosure [BB]



NEMA 4X Enclosure [4X]



Front View	Right View	Top View

CUSTOM ORDERING

Model # Example: A/ (A.) | 1K-NI (B.) | FA (C.) | 24' (D.) | GD (E.) | NIST (F.)

		MODEL #
A. Sensor Series *No Selection Required*	**A/** →	**A/**
B. Model Series *No Selection Required*	**1K-NI** →	**1K-NI**
C. Configuration *No Selection Required*	**FA** = Flexible Plenum Rated Cable Averaging Sensor →	**FA**
D. Probe Length *Select One (1)*	**8'** = 8' Sensor | **12'**= 12' Sensor | **24'** = 24' Sensor | **50'** = 50' Sensor	
E. Enclosure *Select One (1)*	**GD** = Galvanized | **PB** = Plastic | **BB** = Aluminum, NEMA 3R | **4X** = NEMA 4X	
F. NIST *Select One (1)*	**----** = No NIST Certificate | **NIST** = NIST Certificate (3 Points)	

ACCESSORIES ORDERING

Model # Example: A/CAPILLARY CLIP QTY:1 -OR- 130525

Model #	Item #	Description
A/CAPILLARY CLIP QTY: 1	130525	Capillary Mounting Clip, Copper, Quantity: 1
UNIVERSAL CLIP 50	145430	Capillary Mounting Clip, Plastic, Quantity: 50/Bag
UNIVERSAL CLIP 6	145421	Universal Mounting Clip, Plastic, Quantity: 6/Bag

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