FLEXIBLE AVERAGING
Multipoint Averaging Sensor, Thermistor

The ACI Thermistor 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. The sensors in this series are multi-point. Averaging sensors provide a better overall average temperature of the actual air inside larger ducts when compared to that of a single point sensor. All flexible averaging sensors are limited to being used in applications where operating temperatures are limited and high humidity, chemical resistance, and UV light sources aren't required. Each of the sensing elements is protected using a dual wall adhesive lined heat shrink tubing to provide a basic level of moisture protection. The sensor length should be determined by the size of your duct.   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 mounting. Optional copper capillary or universal plastic mounting clips, NEMA/IP Weather proof enclosures and NIST Certificates are available as referenced in the ordering grid on the back of the product data sheet.

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

The ACI Thermistor 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, www.workaci.com.
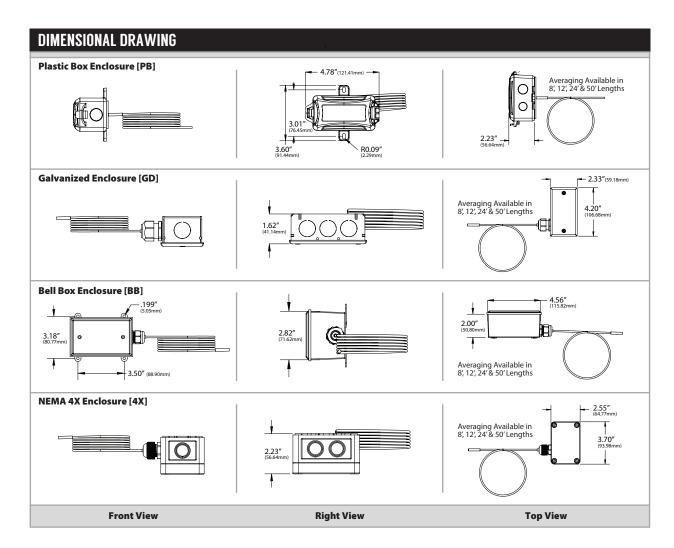
PRODUCT SPECIFICATIONS

**Sensor Type	Sensor Curve:**	Thermistor	Non-Linear, NTC (Negative Temperature Coefficient)
**Number Sensing Points	Number Wires:**	**8' and 12' Lengths:** Four	**24' and 50' Lengths:** Nine	Two (Non-Polarity Sensitive)
Sensor Output @ 25ºC (77ºF) **(Lead Wire Colors):**	**A/1.8K:** 1.8KΩ nominal	(Red/Yellow) **A/3K:** 3KΩ nominal	(White/Brown) **A/AN (Type III):** 10KΩ nominal	(White/White) **A/AN-BC:** 5.238KΩ nominal	(White/Yellow) **A/CP (Type II):** 10KΩ nominal	(White/Green) **A/CSI:** 10KΩ nominal	(Green/Yellow) **A/10KS:** 10KΩ nominal	(White/Blue) **A/10K-E1:** 10KΩ nominal	(Gray/Orange) **A/20K:** 20KΩ nominal	(Brown/Blue) **A/100KS:** 100KΩ nominal	(Black/Yellow)
Accuracy 0-70ºC (32-158ºF):	**8' & 12' Lengths:** +/-0.20ºC (+/-0.36ºF); **A/1.8K:** +/-1.00ºC (+/-1.80ºF); **A/10KS:** +/-0.60ºC (+/-1.10ºF) **24' & 50' Lengths:** +/-0.20ºC (+/-0.36ºF); **A/1.8K:** +/-1.00ºC (+/-1.80ºF); **A/10KS:** +/-0.60ºC (+/-1.10ºF)
Power Dissipation Constant:	**8' & 12' Lengths:** 6 mW/ºC except **A/AN**, **A/CP**, **A/10KE1**: 4 mW	**A/1.8K:** 2 mW **24' & 50' Lengths:** 9 mW/ºC except **A/AN**, **A/CP**, **A/10KE1:** 6 mW	**A/1.8K:** 3 mW
Stability:	Sensor Dependent; Contact ACI for more information on specific sensor
Response Time (63% Step Change):	15 Seconds nominal
**Operating	Storage Temperature Range:**	0 to 75ºC (32 to 167ºF)	-20 to 75ºC (-4 to 167ºF)
Operating Humidity Range:	10 to 90% RH, non-condensing
Enclosure Specifications (Material Type, 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	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

DIMENSIONAL DRAWING

Plastic Box Enclosure [PB]

4.78" (121.41mm)
3.01" (76.45mm)
3.60" (91.44mm)
R0.09" (2.29mm)
Averaging Available in 8', 12', 24' & 50' Lengths
2.23" (56.64mm)

Galvanized Enclosure [GD]

1.62" (41.14mm)
2.33" (59.18mm)
4.20" (106.68mm)
Averaging Available in 8', 12', 24' & 50' Lengths

Bell Box Enclosure [BB]

.199" (5.05mm)
3.18" (80.77mm)
3.50" (88.90mm)
2.82" (71.62mm)
4.56" (115.82mm)
2.00" (50.80mm)
Averaging Available in 8', 12', 24' & 50' Lengths

NEMA 4X Enclosure [4X]

2.23" (56.64mm)
2.55" (64.77mm)
3.70" (93.98mm)
Averaging Available in 8', 12', 24' & 50' Lengths

Front View	Right View	Top View

CUSTOM ORDERING

Model # Example: A/ | 1.8K | FA | 24' | GD | NIST
A.   B.   C.   D.   E.   F.

		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** | **100KS**	
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 (Must Specify 1, 3 or 5 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, Copper, Quantity: 50/Bag
UNIVERSAL CLIP 6	145421	Universal Mounting Clip, Plastic, Quantity: 6/Bag