

Automation Components, Inc.

## TEMPERATURE | PLATINUM RTDS | FLEXIBLE AVERAGING



## FLEXIBLE AVERAGING Multipoint Averaging Sensor, Platinum RTD

The ACI Platinum Flexible Averaging Series features an 18 AWG Plenum rated cable with Etched Teflon colored lead wires to differentiate the different sensor types. ACI recommends using 18 AWG lead wires to reduce external lead wire resistance when using a Platinum RTD. All sensors are manufactured with 4 or 9 sensing points determined by the length of the sensor. Averaging sensors provide a better average temperature of the air inside larger ducts when compared to that of a single point sensor. The flexible averaging sensors are limited to applications where operating temperatures are limited and where high humidity, chemical resistance and UV Light Air Treatment Systems aren't required. Each of the sensing elements is protected by a dual wall adhesive lined heat shrink tubing to provide a level of moisture

protection to the sensing elements. The sensor length should be determined by the dimensional size of your duct. Standard enclosure options include a "-GD" Galvanized or "-PB" plastic duct enclosure with hinged cover. Each unit includes nylon wire ties and mounts for mounting. Optional copper capillary or universal plastic mounting clips, NEMA/IP rated enclosures and NIST Certificates are available as referenced in the ordering grid.

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

The ACI Platinum 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**

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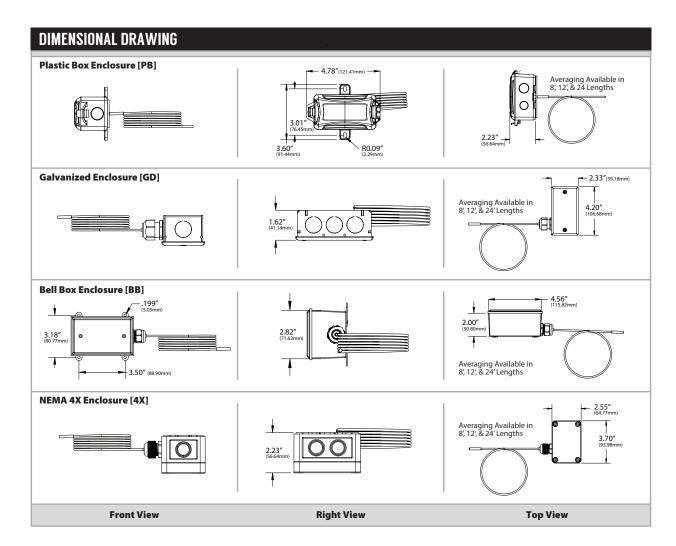
Sensor Type   Sensor Curve:	Platinum RTD   PTC (Positive Temperature Coefficient)
Number Sensing Points:	8' and 12' Models: Four   24' & 50' Models: Nine
Number Wires:	A/1K-2W-FA Series: Two (Non-Polarity Sensitive)
Sensor Output @ 0°C (32°F):	1000 Ohms nominal
Sensor Tolerance:	+/- 0.06% Class A
Din Standard   Temperature Coefficient:	DIN EN 60751 (IEC 751)   3850 ppm / °C
Sensor Accuracy @ 20°C (68°F):	<b>8'</b> = +/- 0.34°C (+/- 0.62°F)   <b>12'</b> = +/- 0.45°C (+/- 0.81°F)
	<b>24'</b> = +/- 0.80°C (+/- 1.44°F)
Sensor Stability:	+/- 0.03% after 1000 Hours @ 300°C (572°F)
Response Time (63% Step Change):	15 Seconds nominal
Self-Heating   Maximum Operating Current:	4 mW/ºC (Still Air)   3 mA
Operating   Storage Temperature Range:	0 to 75°C (32 to 167°F)   -20 to 75°C (-4 to 167°F)
Operating Humidity Range:	10 to 90% RH, non-condensing
Enclosure Specifications (Material,	"-GD" Enclosure: Galvanized Steel; NEMA 1 (IP10);
Flammability, NEMA/IP Ratings):	"-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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CUSTOM ORDERING	Model≢Example: A/ - 1K - 2W FA - 8' - GD NIST A. B. C. D. E. F. G.	MODEL #	
A. Sensor Series No Selection Required	A/	<b>A</b> /	
B. Model Series No Selection Required	1K = 1K Ohm Platinum RTD		
C. Number of Wires No Selection Required	2W = Two Wires		
D. Configuration No Selection Required	FA = Flexible Plenum Rated Cable Averaging Sensor		
E. Sensor Length Select One (1)	<b>8'</b> = 8' (2.44m)   <b>12'</b> = 12'(3.66m)   <b>24'</b> = 24' (7.31m)		
F. Enclosure Select One (1)	GD = Galvanized   PB = Plastic   BB = Aluminum, NEMA 3R   4X = NEMA 4X		
G. NIST Select One (1)	= No NIST Certificate   <b>NIST</b> = NIST Certificate (Must Specify 1, 3 or 5 Points)		

ACCESSORIES ORDERING Model # Example: A/CAPILLARY CLIP QTY:1 - OR- 13032		
Model #	ltem #	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