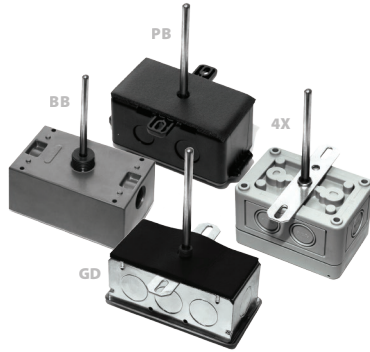




RIGID AVERAGING

Continuous Averaging, Platinum RTD



The ACI Platinum Rigid Averaging features a stainless steel probe with Etched Teflon colored lead wires to differentiate the different sensor types. The three-wire “-3W” option should be ordered when using with a 3-Wire temperature transmitter or sensor configuration on your building management system or PLC (Programmable Logic Controller). The purpose of the 3rd wire is to compensate for external lead wire resistance that affects the accuracy of your sensor output. ACI recommends the use of 18 AWG lead wires to reduce external lead wire resistance when using a Platinum RTD. The rigid averaging sensors include a continuous sensing element, which covers the entire length of the probe. This allows for a better average temperature over the entire length of the sensor when compared to that of a single point duct sensor or multi-point averaging sensor. These sensors are hermetically sealed with epoxy to ensure that moisture and other contaminants can’t affect the sensing element. The Rigid Averaging sensor

also includes a foam pad to seal the duct and dampen vibrations once installed. The sensor length should be determined by the width or diameter of your duct such that the sensor covers most of the internal width or height of the duct. Our standard enclosure options include the “-GD” galvanized or “-PB” plastic duct enclosure with hinged cover. On larger ducts, our Platinum bendable copper averaging sensor can be used for larger ducts and increased coverage area. This series can be ordered with optional NEMA/IP rated weather proof enclosures and NIST Certificates as referenced in the ordering grid.

Applications: Roof Top Units, Air Handlers, Monitoring Duct Supply/Discharge/Return/Mixed Air Temperatures

PRODUCT SPECIFICATIONS

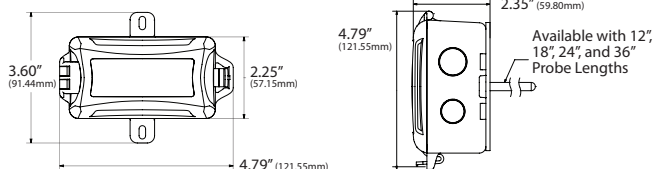
Sensor Type Sensor Curve:	Platinum RTD PTC (Positive Temperature Coefficient)
Number Sensing Points:	Continuous
Number Wires:	A/1K-2W-RA-xx”: Two (Non-Polarity Sensitive) A/1K-3W-RA-xx”: Three (Polarity Sensitive)
Sensor Output @ 0°C (32°F):	1000 Ohms nominal
Sensor Accuracy:	+/- 0.1% @ 0°C (32°F) +/- 0.25% @ 21°C (70°F) +/- 1.0% @ 130°C (266°F)
Temperature Coefficient:	3850 ppm / °C
Response Time (63% Step Change):	15 Seconds nominal
Self-Heating Maximum Operating Current:	4 mW/°C (Still Air) 3 mA
Sensor Operating Temperature Range:	-40 to 135°C (-40 to 275°F)
Enclosure Specifications (Temperature Range, Material, Flammability, NEMA/IP Ratings):	<p>“-GD” Enclosure: -40 to 115°C (-40 to 239°F); Galvanized Steel; NEMA 1 (IP10)</p> <p>“-PB” Enclosure: -30 to 90°C (-22 to 194°F); ABS Plastic; UL94-HB; Plenum Rated</p> <p>“-BB” Enclosure: -40 to 115°C (-40 to 239°F); Aluminum; NEMA 3R (IP 14)</p> <p>“-4X” Enclosure: -40 to 70°C (-40 to 158°F); Polystyrene Plastic; UL94-V2; NEMA 4X (IP 66)</p>
Storage Temperature Range:	-40 to 85°C (-40 to 185°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Probe Material:	304 Series Stainless Steel
Probe Diameter:	0.250” (6.35mm)
Fitting Material Flammability Rating:	Polyamide 66 (High Performance Nylon) UL94-HB
Foam Pad Material Flammability Rating:	Neoprene/EPDM/SBR Polymer UL94-HBF; FMVSS-302; MIL-R-6130C
Lead Length Conductor Size:	12” (30.5cm) 22 AWG (0.65mm)
Lead Wire Insulation Wire Rating:	Etched Teflon (PTFE) Colored Leads Mil Spec 16878/4 Type E)
Conductor Material:	Silver Plated Copper
Product Dimensions Product Weight:	See table on back of Product Data Sheet
Agency Approvals:	CE, RoHS2, WEEE





DIMENSIONAL DRAWING, WEIGHTS

Plastic Box Enclosure [PB]

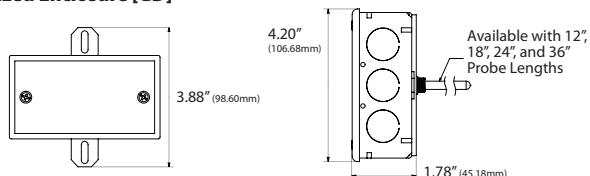


xx = Sensor Type | yy = Insertion Length

Plastic Box Enclosure [PB] Weights

ACI Model #	12" (Probe Length)	18" (Probe Length)
A/xx-RA-yy-PB	0.28 lbs. (0.127 kg)	0.30 lbs. (0.136 kg)
ACI Model #	24" (Probe Length)	36" (Probe Length)
A/xx-RA-yy-PB	0.32 lbs. (0.145 kg)	0.36 lbs. (0.163 kg)

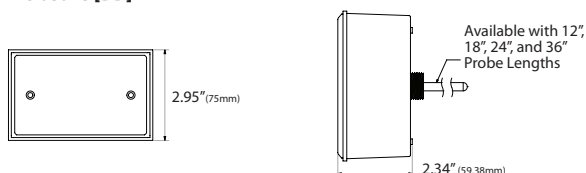
Galvanized Enclosure [GD]



Galvanized Enclosure [GD] Weights

ACI Model #	12" (Probe Length)	18" (Probe Length)
A/xx-RA-yy-GD	0.70 lbs. (0.317 kg)	0.74 lbs. (0.336 kg)
ACI Model #	24" (Probe Length)	36" (Probe Length)
A/xx-RA-yy-GD	0.78 lbs. (0.354 kg)	0.82 lbs. (0.372 kg)

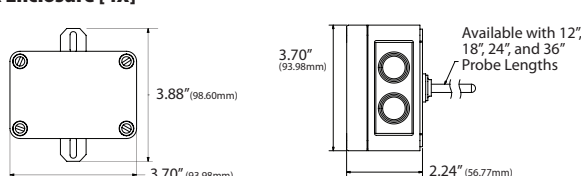
Bell Box Enclosure [BB]



Bell Box Enclosure [BB] Weights

ACI Model #	12" (Probe Length)	18" (Probe Length)
A/xx-RA-yy-BB	0.74 lbs. (0.336 kg)	0.78 lbs. (0.354 kg)
ACI Model #	24" (Probe Length)	36" (Probe Length)
A/xx-RA-yy-BB	0.78 lbs. (0.354 kg)	0.84 lbs. (0.381 kg)

NEMA 4X Enclosure [4X]



NEMA 4X Enclosure [4X] Weights

ACI Model #	12" (Probe Length)	18" (Probe Length)
A/xx-RA-yy-4X	0.38 lbs. (0.172 kg)	0.40 lbs. (0.181 kg)
ACI Model #	24" (Probe Length)	36" (Probe Length)
A/xx-RA-yy-4X	0.44 lbs. (0.200 kg)	0.50 lbs. (0.227 kg)

Standard Views

Product Weights

CUSTOM ORDERING

Model # Example: A/ 1K 2W RA 36" GD NIST

A. Sensor Series No Selection Required	A/	MODEL #	A/
B. Model Series No Selection Required	1K = 1K Ohm Platinum RTD		1K
C. Number of Wires Select One (1)	2W = Two Wires 3W = Three Wires		
D. Configuration No Selection Required	RA = Rigid Averaging Sensors		RA
E. Probe Length Select One (1)	12" = 12" (30.5cm) Probe 18" = 18" (45.72cm) Probe 24" = 24" (61cm) Probe 36" = 36" (91.45cm) Probe		
F. Enclosure Select One (1)	GD = Galvanized PB = Plastic BB = Aluminum, NEMA 3R 4X = NEMA 4X		
G. NIST Select One (1)	---- = No NIST Certificate NIST = NIST Certificate (Must Specify 1, 3 or 5 Points)		

