RIGID AVERAGING
Four Point Averaging, Nickel RTD

The ACI Nickel Rigid Averaging Series features a stainless steel, probe style sensing element with two 12 inch 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. The Nickel Rigid Averaging sensors are manufactured with 4 sensing points to provide a better average temperature in smaller to medium sized ducts when compared to that of a single point duct sensor or the longer Flexible and Copper averaging sensors can't be easily incorporated. Each of the elements is hermetically sealed to prevent moisture intrusion and includes an integrated foam pad to seal the duct and dampen vibrations. Some of the benefits of using a stainless steel Rigid Averaging sensor is that it can be installed easily in either a horizontal or vertical position, like that of a single point duct sensor and can be used in applications where a longer Flexible or Copper averaging sensor aren't easily installed. As an added benefit, the stainless steel probe also offers a higher l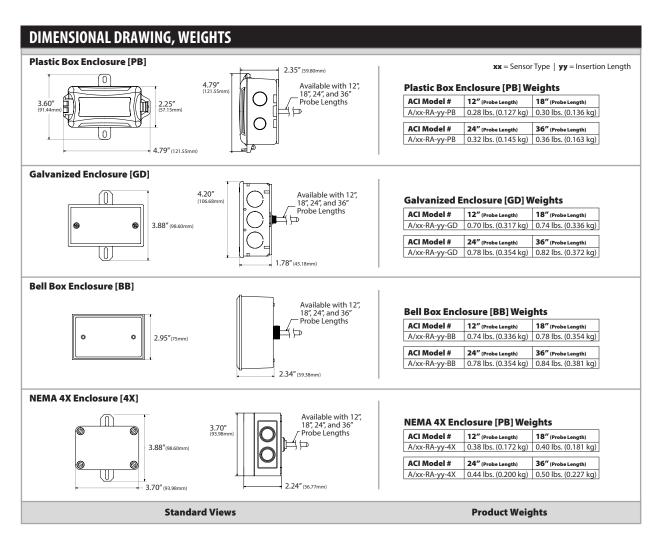evel of corrosion resistance to chemicals and moisture in the air stream when compared to that of the Flexible or Copper Averaging sensors. Actual sensor length should be selected based upon the overall dimensional area of your duct. ACI's standard enclosures include the galvanized junction box "-GD" or plastic duct enclosure with the hinged cover "-PB". Optional 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 Rigid 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:	Nickel RTD | PTC (Positive Temperature Coefficient)
Number Sensing Points | Number Wires:	Four | Two (Non-Polarity Sensitive)
Sensor Output @ 21.1^{o}C (70°F) | Lead Wire Colors:	1000 Ohms nominal | Red/Red
Sensor Accuracy:	**21.1^{o}C (70°F)** = +/- 0.22^{o}C (+/- 0.39^{o}F) | **54.4^{o}C (130°F)** = +/- 0.60^{o}C (+/- 1.07^{o}F)
Din Standard | Temperature Coefficient (0-100°C)	Din 43760 | 6370 ppm/^{o}C
Sensor Stability:	+/- 0.05% after 1000 Hours @ 150°C (302°F)
Self-Heating | Maximum Operating Current:	0.3^{o}C/mW (Still Air) | 5 mA
Response Time (63% Step Change):	10 Seconds nominal
Enclosure Specifications (Operating Temperature,	**"-GD" Enclosure:** Galvanized Steel, -40 to 115°C (-40 to 239°F), NEMA 1 (IP10)
Material, Flammability, NEMA/IP Ratings):	**"-PB" Enclosure:** ABS Plastic, -30 to 90°C (-22 to 194°F), UL94-HB, Plenum Rated
	"-BB" Enclosure: Aluminum, -40 to 115°C (-40 to 239°F), NEMA 3R (IP 14)
	"-4X" Enclosure: Polystyrene Plastic, -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
Sensing Element Material | Element Diameter:	304 Series Stainless Steel | 0.250" (6.35mm) nominal
Fitting Material | Flammability Rating:	Polyamide 66 (High Performance Nylon) | UL94-HB
Foam Pad Material | Flammability Ratings:	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 Ratings:	Etched Teflon (PTFE) Colored Leads | MIL-W-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

TEMPERATURE | NICKEL RTDS | RIGID AVERAGING

DIMENSIONAL DRAWING, WEIGHTS

Plastic Box Enclosure [PB]

3.60" (91.44mm)
2.25" (57.15mm)
4.79" (121.55mm)
4.79" (121.55mm)
2.35" (59.80mm)

Available with 12", 18", 24", and 36" Probe Lengths

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]

3.88" (98.60mm)
4.20" (106.68mm)
1.78" (45.18mm)

Available with 12", 18", 24", and 36" Probe Lengths

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]

2.95" (75mm)
2.34" (59.38mm)

Available with 12", 18", 24", and 36" Probe Lengths

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]

3.88" (98.60mm)
3.70" (93.98mm)
3.70" (93.98mm)
2.24" (56.77mm)

Available with 12", 18", 24", and 36" Probe Lengths

NEMA 4X Enclosure [PB] 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**

STANDARD ORDERING

Model # Example: **A/1K-NI-RA-12"-GD** -OR- 142466

Model #	Item #	Description
A/1K-NI-RA-12"-GD	142466	1K Nickel, Rigid Averaging, Stainless Steel, 12" (30.5cm), Galvanized Enclosure, 12" Leads
A/1K-NI-RA-12"-PB	138666	1K Nickel, Rigid Averaging, Stainless Steel, 12" (30.5cm), Plastic Enclosure, 12" Leads
A/1K-NI-RA-18"-GD	131112	1K Nickel, Rigid Averaging, Stainless Steel, 18" (45.7cm), Galvanized Enclosure, 12" Leads
A/1K-NI-RA-18"-PB	126522	1K Nickel, Rigid Averaging, Stainless Steel, 18" (45.7cm), Plastic Enclosure, 12" Leads
A/1K-NI-RA-24"-GD	131113	1K Nickel, Rigid Averaging, Stainless Steel, 24" (61cm), Galvanized Enclosure, 12" Leads
A/1K-NI-RA-24"-PB	129210	1K Nickel, Rigid Averaging, Stainless Steel, 24" (61cm), Plastic Enclosure, 12" Leads
A/1K-NI-RA-36"-GD	131114	1K Nickel, Rigid Averaging, Stainless Steel, 36" (91.5cm), Galvanized Enclosure, 12" Leads
A/1K-NI-RA-36"-PB	134238	1K Nickel, Rigid Averaging, Stainless Steel, 36" (91.5cm), Plastic Enclosure, 12" Leads

CUSTOM ORDERING

Model # Example: A/ | 1K-NI | RA | 18" | GD | NIST
A. | B. | C. | D. | E. | 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	**RA** = Rigid Averaging ──────────────►	**RA**
D. Probe Length Select One (1)	**12"** = 12" Probe	**18"** = 18" Probe	**24"** = 24" Probe	**36"** = 36" Probe	
E. Enclosure Select One (1)	**GD** = Galvanized	**PB** = Plastic	**BB** = Aluminum	**4X** = NEMA 4X	
F. NIST Select One (1)	**----** = No NIST Certificate	**NIST** = NIST Certificate (3 Points)	