ACI
"First in Sensor Quality"

DISPLAYS

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

AIR QUALITY

ACCESSORIES

Product Data

A/100 Series
A/1K Series

Platinum RTD Temperature Sensors

RTD

Attributes:
- **Double Potting Process to avoid Moisture Issues**
- **European enclosure for outside air**
- **Class A Standard exceeds most specifications**
- **Four-way Airflow design for wall mount**
- **Can be used with a transmitter to provide a 4 to 20mA signal**
- **Continuous Element Averaging Sensors**

Applications:
- **DDC Systems**
- **Refrigeration Systems**
- **OEM / Industrial**
- **Light Industrial**

Product Description

The A/100 and A/1K Series temperature sensors incorporate a Class A, Thin Film Platinum RTD sensor which conforms to DIN-IEC-751 platinum RTD standards. These sensors are available in either two or three-wire configurations, incorporating high accuracy and interchangeability throughout a wide operating temperature range.

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room with Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Bendable Copper / Continuous Element and Stainless Steel Rigid Averaging, Strap-On, Bullet Probe and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Product Specifications

Output	100 Ohms @ 32°F (0°C)
	1K Ohms @ 32°F (0°C)
Accuracy	+/- 0.06% @ 32°F (0°C) Single Point
	+/- 1.0 Ohm @ 70°F (Averaging)
Stability	less than +/- 0.1°C drift
Repeatability	+/-0.2°C (+/-0.36°F)
Operating Temp Range: Single Point	-58 to 392°F (-50 to 200°C)
Continous Element Averaging	-50 to 275°F (-45.5 to 134.8°C)
Temp. Coefficient	0.00385 Ohm/Ohm/°C
Standardization	DIN-IEC-751(formerly DIN 43760)
Resistance Characteristics	+/- 0.06% Class A (Standard)
	+/- 0.12% Class B (Averaging)
For sensors with Display option, see the **LCD Series** cut sheet	

Made in the USA

Automation Components, Inc.
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Wiring Diagrams available at www.workaci.com/instructions.htm
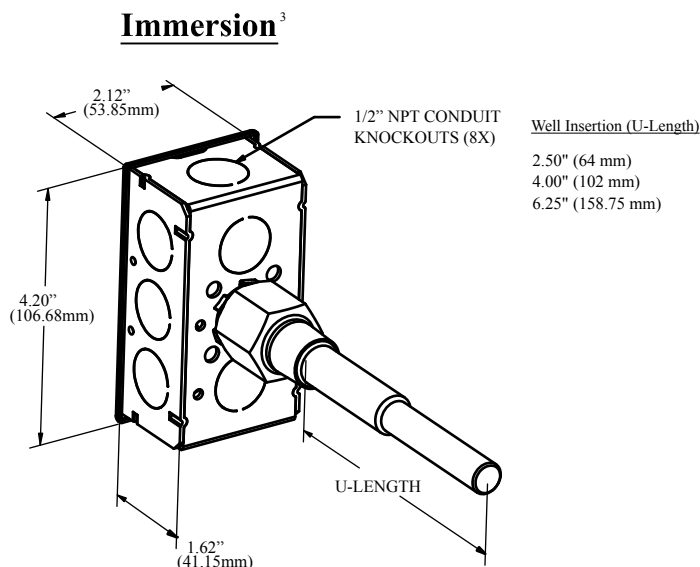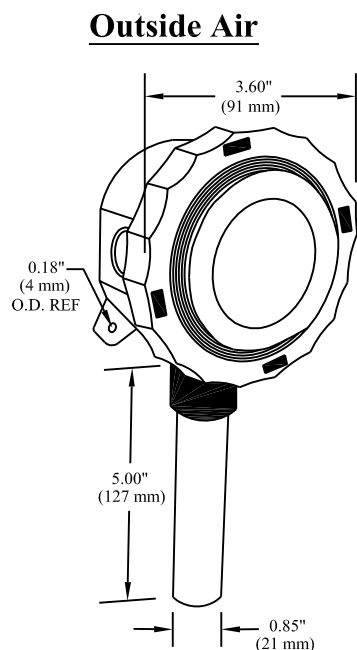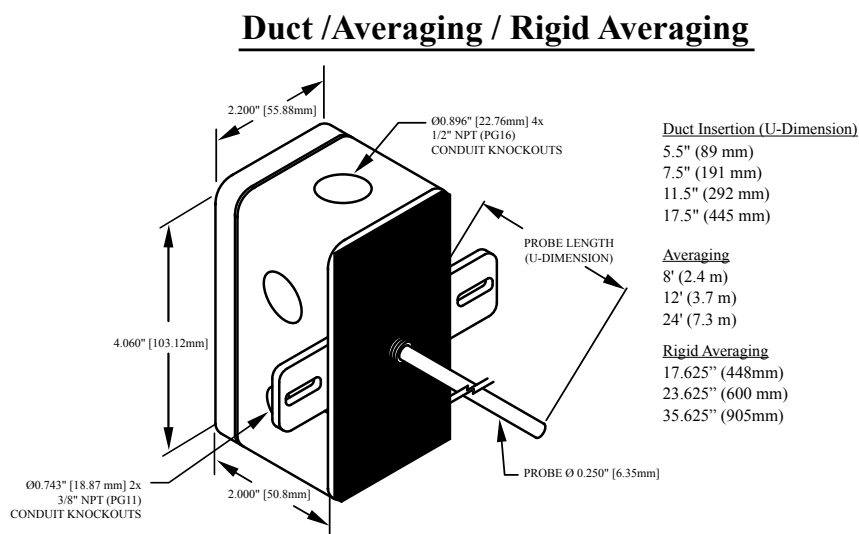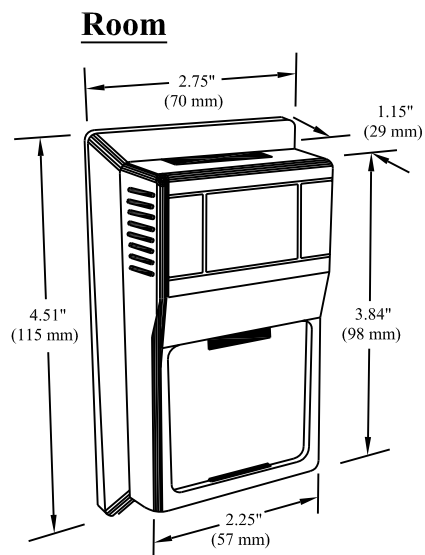C0000100 Rev 1.pdf

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Room

2.75" (70 mm)

1.15" (29 mm)

4.51" (115 mm)

3.84" (98 mm)

2.25" (57 mm)

Duct /Averaging / Rigid Averaging

2.200" [55.88mm]

Ø0.896" [22.76mm] 4x
1/2" NPT (PG16)
CONDUIT KNOCKOUTS

4.060" [103.12mm]

PROBE LENGTH
(U-DIMENSION)

Ø0.743" [18.87 mm] 2x
3/8" NPT (PG11)
CONDUIT KNOCKOUTS

2.000" [50.8mm]

PROBE Ø 0.250" [6.35mm]

Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Rigid Averaging
17.625" (448mm)
23.625" (600 mm)
35.625" (905mm)

Outside Air

3.60" (91 mm)

0.18" (4 mm) O.D. REF

5.00" (127 mm)

0.85" (21 mm)

Immersion[3]

2.12" (53.85mm)

1/2" NPT CONDUIT
KNOCKOUTS (8X)

4.20" (106.68mm)

U-LENGTH

1.62" (41.15mm)

Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor	# Wires	Configuration	Communication Jack[1]	Pot Value[1]	Setpoint Indicator[1]	Pot Action[1]	Display[1]	Housing Type[2]
A/ [ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]

100	**2W** (2-Wire)	**R -** Room	**RJ4** (4 Pin RJ11)	**400**	**Cool	Warm**	**DA** (Direct)
1K	**3W** (3-Wire)	**RS -** Room w/ Setpoint	**RJ6** (6 Pin RJ12)	**1K**	**55 to 85**	**RA** (Reverse)
		RO - Room w/ Override	**RS232** (Stereo Jack)	**2K**	**10 to 30° C**	
		RSO - Room w/ Setpoint & Override		**3K**		

Display[1]:
( ) No Display (Standard)
(DF) LCD Display (Degrees F)
(DC) LCD Display (Degrees C)

Housing Type[2]:
(PB) Plastic Housing (Standard)
(GD) Galvanized
(BB) NEMA 3R
(4X) NEMA 4X
(EH) Euro

Configuration (continued):
D - Duct 4", 8", 12", 18", 24"
DO - Duct without box 4", 8", 12", 18"
I - Immersion[3] 2.5", 4", 6"
A - Bendable Copper Averaging 12', 24'
RA - Rigid Averaging 18", 24", 36"
S - Strap On[3]
O - Outdoor Air
SP - Stainless Plate
BP - Bullet Probe
W - Raw
W-6' - Raw Sensor w/6'Leads
BBS - Brass Button Sensor
SBS - Stainless Button Sensor

Pot Value (continued):
5K
8.5K
10K
20K
100K

[1]These Options are only available on ACI's Room Configurations. Resistors are available in series with pot values listed above. Contact ACI for details.

[2]Duct, Bendable Copper and Rigid Averaging come standard w/ plastic boxes. Optional enclosures include NEMA 3R (BB), NEMA 4X (4X) or the Galvanized Junction Box (GD).

[3]Immersion and Strap-On sensors come standard with the galvanized junction box. (The plastic enclosure is also available but is rated for applications below 140 degrees F) Additional enclosures include NEMA 3R (BB) or NEMA 4X (4X) for immersion and NEMA 4X (4X) for Strap On.

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