



Product Data

A/100 Series A/1K Series

Platinum RTD Temperature Sensors

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 Setpoint, 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 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.

The A/100 Series and A/1K Series are covered by ACI's Five (5) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site, which is: www.workaci.com.

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 | |

Wiring Diagrams available at www.workaci.com

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

Applications:

- DDC Systems
- Refrigeration Systems
- OEM / Industrial
- Light Industrial



Made in the USA

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TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

GAS SENSORS

ACCESSORIES

INTERFACE DEVICES

Ordering Information

2W=two wire
3W=three wire

A/1K-2W, A/1K-3W, A/100-2W, or A/100-3W (choose configuration below)

| -Configuration | -Length | -Enclosure Type | -Optional Plenum Wire |
|---------------------------------------|------------------|---------------------|--------------------------|
| D (Duct) | 4", 8", 12", 18" | PB, GD, BB, 4X, EH | |
| DO (Duct without Box) | 4", 8", 12", 18" | ----- | 6'CL2P, 10'CL2P, 20'CL2P |
| I (Immersion w/ well) | 2.5", 4", 6" | PB*, GD, BB, 4X, EH | |
| INW (Immersion no well) | 2.5", 4", 6" | PB*, GD, BB, 4X, EH | |
| A (Copper Averaging) | 8', 12', 24' | PB, GD, BB, 4X, EH | |
| FA (Flex. Cable Averaging) | 8', 12', 24' | PB, GD, BB, 4X, EH | |
| RA (Rigid Averaging) | 18", 24", 36" | PB, GD, BB, 4X, EH | |
| S (Strap) | ----- | PB*, GD, 4X | |
| O (Outdoor Air) | ----- | EH, BB, 4X | |
| SP (Stainless Plate) | | | |
| W (Raw Potted Sensor) | | | |
| W-6' (Raw w/ 6' Leads) | | | |
| BP (Bullet Probe) | | | |
| BP-20'Z (BP w/20' of Zip Wire) | | | |
| BBS (Brass Button Sensor) | | | |
| SBS (Stainless Button Sensor) | | | |
| PBS (Plastic Button Sensor) | | | |

Enclosure Key

PB = Plastic Box
GD = Galvanized Box
BB = NEMA 3R
4X = NEMA 4X
EH = Euro Housing (Weather tight)

*Please note that the -PB (Plastic Box) is rated to 140° F and may not be suitable for high temperature applications.

Example: A/1K-3W-D-4"-PB

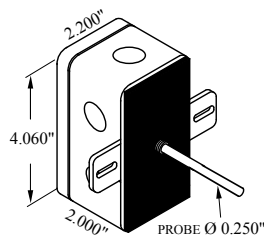
Room configurations:

| Configuration | Communication Jack | Pot Value* | Setpoint Indicator* | Pot Action* | Display |
|---|----------------------------|------------|---------------------|--------------|------------------------------|
| -[] | -[] | -[] | -[] | -[] | -[] |
| R - Room | RJ4 (4 Pin RJ11) | 400 5K | Cool Warm | DA (Direct) | () No Display (Standard) |
| RS* - Room w/ Setpoint | RJ6 (6 Pin RJ12) | 1K 8.5K | 55 t o 85 | RA (Reverse) | (DF) LCD Display (Degrees F) |
| RO - Room w/ Override | RS232 (Stereo Jack) | 2K 10K | 10 t o 30 °C | | (DC) LCD Display (Degrees C) |
| RSO* - Room w/ Setpoint & Override | | 3K 20K | | | |
| | | 100K | | | |

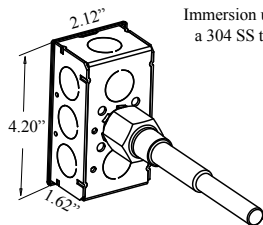
Room Sensors with* require setpoint specs (value, indication, and action) and are not listed on your packing slip or invoice.

Example: A/1K-3W-RSO- 10K- Cool/Warm-DA

Standard enclosure defaults:

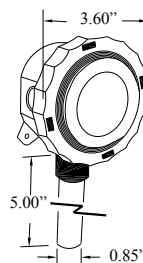


Duct
(Plastic Box)

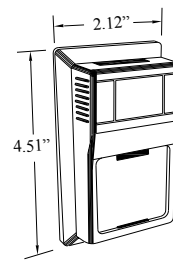


Immersion
(Galvanized Box)

Immersion units include a 304 SS thermowell



Outdoor Air
(Euro Enclosure)



Room

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