R-LCD

R

R2

ROOM
Wall Mount Enclosure, Thermistor

The ACI Thermistor Room Series combines option flexibility with attractive styling in our "-R2" or "-R" style enclosures which include four-way air flow design too minimize self-heating to the sensor. These enclosures are offered in a White "-R2" or Beige "-R" color depending on the enclosure style. These units are designed to be mounted over a single gang junction box or hole in the wall using drywall anchors. Screw terminal blocks are available for making all connections to your building management system (network). An optional 1/8" Black foam pad with pressure sensitive adhesive is available to insulate the sensor from thermal drafts within the wall or wall surface. A 1/16" Hex driver is needed to secure the cover from being easily removed. The "LCD" option uses two temperature sensors to monitor the ambient air temperature in the space and is factory calibrated at a single point.

Applications: Space Temperature Sensing, Decorative Wall Sensor Applications, Office Buildings, Schools, Colleges, Commercial Buildings, OEM Opportunities
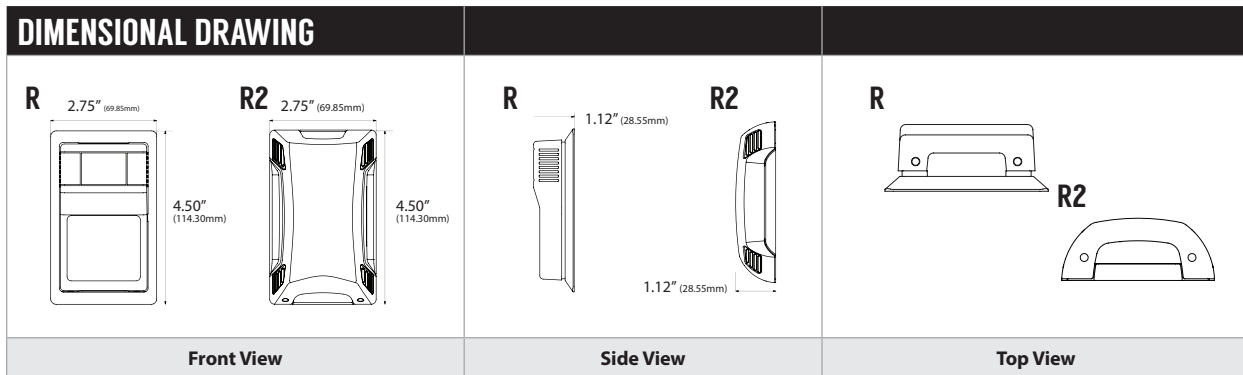
The ACI Thermistor Room is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, workaci.com**.**

PRODUCT SPECIFICATIONS

**Sensor Type	Sensor Curve:**	Thermistor **|** Non-Linear, NTC (Negative Temperature Coefficient)
Number Temperature Sensing Points:	One
Sensor Output @ 25°C (77°F):	**A/1.8K Series:** 1.8KΩ nominal **A/CSI Series:** 10KΩ nominal **A/3K Series:** 3KΩ nominal **A/10KS Series:** 10KΩ nominal **A/AN Series (Type III):** 10KΩ nominal **A/10K-E1 Series:** 10KΩ nominal **A/AN-BC Series:** 5.238KΩ nominal **A/50K Series:** 50KΩ nominal **|** Brown/Yellow) **A/20K Series:** 20KΩ nominal **A/100KS Series:** 100KΩ nominal **A/CP Series (Type II):** 10KΩ nominal
Accuracy 0-70°C (32-158°F):	+/- 0.2°C (+/-0.36°F) except **A/10K-E1 Series:** +/-0.3°C (+/-0.54°F) **A/1.8K Series:** +/-0.5°C @ 25°C (77°F) and +/-1.0°C (+/-1.8°F)
Stability:	Sensor Dependent; Contact ACI for more information on specific sensor
Response Time (63% Step Change):	10 Seconds nominal
Power Dissipation Constant:	3 mW/°C except **A/1.8K Series:** 1 mW/°C **|** **A/10K-E1 Series:** 2 mW/°C
LCD Display Supply Voltage:	+9 to 35 VDC / 24 VAC (50-60 Hz)
LCD Display Supply Current/VA:	< 4 mA / 0.12 VA
LCD Display Accuracy:	+/- 2°F or +/- 2°C @ 71°F (21.5°C) Typical
**LCD Display Descriptor	Number of Digits:**	°F (Fahrenheit) or °C (Celsius) **|** 3 1/2 Segment Display
LCD Display Life Expectancy:	50,000 Hours Minimum
**Set Point Specifications	Set Point Indication:**	See Ordering Grid options on back of Product Data Sheet
Set Point Tolerance:	+/- 10% of Range
Override Options:	Short Thermistor (Default); Field (Jumper) Selectable "Dry Contact" Closure (Separate Input); Short Set Point available upon request
**Operating	Storage Temperature Range:**	1.5 to 50°C (35 to 122°F) **|** **Non-LCD:** -40 to 65°C (-40 to 149°F), **LCD Display:** -10 to 65°C (14 to 149°F)
Operating Humidity Range:	10 to 95%RH, non-condensing
**Connections	Wire Size:**	Screw Terminal Blocks **|** 16 (1.31 mm²) to 26 (0.129 mm²) AWG
Terminal Block Torque Rating:	0.5 Nm (minimum); 0.6 Nm (maximum)
**Enclosure Material	Color:**	**"-R2" Enclosure:** ABS Plastic, White, UL94-HB **|** **"R" Enclosure:** ABS Plastic, Beige UL94-HB
Product Dimensions:	See Drawing on back of Product Data Sheet
Product Weight:	**A/XX-R/RS/RO Series:** 0.14 lbs. (63.5g) **|** **A/XX-RSO Series:** 0.18 lbs. (81.6g) **A/XX-R2/R2S/R2O Series:** 0.16 lbs. (72.6g) **|** **A/XX-R2SO Series:** 0.20 lbs. (90.7g) **All LCD Display Units:** 0.18 lbs. (81.6g)
Agency Approvals:	CE**, RoHS2, WEEE

Note:** All LCD Display Units are not CE Compliant, but they are RoHS2 Compliant

DIMENSIONAL DRAWING

| Front View | Side View | Top View |

STANDARD ORDERING

Model #	Item #	Description
A/CP-R	144212	10K (Type II), "R" Version, Beige, No Options
A/CP-R2	144213	10K (Type II), "R2" Version, White, No Options
A/AN-R	144208	10K (Type III), "R" Version, Beige, No Options
A/AN-R2	144209	10K (Type III) "R2" Version, White, No Options
A/20K-R	144160	20K, "R" Version, Beige, No Options
A/20K-R2	144170	20K, "R2" Version, White, No Options

CUSTOM ORDERING · MODEL

		MODEL #
A. Sensor Series[1] *No Selection Required*	A/ ⟶	A/
B. Model Series *Select One (1)*	1.8K | 3K | AN | AN-BC | CP | CSI | 10KS | 10K-E1 | 20K | 50K | 100KS	
C. Configuration *Select One (1)*	**R** = Room | **RO** = Room with Override | **RS** = Room with Set Point | **RSO** = Room with Setpoint and Override | **R2** = Room | **R2O** = Room with Override | **R2S** = Room with Set Point | **R2SO** = Room with Set Point and Override	
D. Communication Jack *Select One (1)*	**----** = No Jack **RJ4** = 4 Pin 4 Conductor RJ9, RJ10 or RJ22 Style Head Set Modular Connector **RJ6** = 6 Pin 6 Conductor RJ12 Modular Phone Connector **232** = 3.5mm (1/8") Stereo Jack	
E. LCD Display[2] *Select One (1)*	**----** = No LCD Display | **LCD**[2] = With LCD Display (Only Available with "R" Style Enclosure)	
F. LCD Display Descriptor *Select One (1)*	**F** = °F (Fahrenheit) | **C** = °C (Celsius)	
G. NIST[3] *Select One (1)*	**----** = No NIST Certificate | **NIST =** NIST Certificate (3 Points)	
Setpoint Configuration Options *Select Options below if RS, RSO, R2S or R2SO was selected as a Configuration (C)*		
1. Slidepots[4] *Select One (1)*	**Direct Acting** *(Range in Ohms)* **A01** = 0 to 100K | **A02** = 0 to 20K | **A03** = 0 to 10K | **A06** = 4.75K to 24.75K | **A07** = 10K to 30K | **A08** = 1K to 11K | **A09** = 0 to 2K | **A10** = 0 to 1K | **A11** = 2.05K to 3.05K | **A12** = 0 to 400 | **A16** = 0 to 5K | **A18** = 10K to 15K | **A20** = 6.19K to 26.19K | **A26** = 866 to 1,266 | **A29** = 7.87K to 27.8K **Reverse Acting** *(Range in Ohms)* **A04** = 1051.1 to 51.1 | **A14** = 10K to 0 | **A24** = 9.5K to 1K	
2. Setpoint Indication *Select One (1)*	**A3** = 18-28 DEG C | **A4** = 20-30 DEG C | **B4** = 55-85 DEG F | **B7** = 60-90 DEG F | **C5** = COOL/WARM | **C6** = COOLER/WARMER | **D3** = WARM/COOL | **G5** = BLUE/RED (R2 Enclosure)	

Note[1]: A/ part numbers come without logo. For custom logo, replace A/ with Company abbreviation. Please contact ACI **| Note**[2]: LCD Display is not compatible with NIST **| Note**[3]: NIST is available in "R" and "R2" only configurations **| Note**[4]: Other Setpoint configurations are available. Please contact ACI **| Note***: Short Sensor is factory default, but the Dry Contact option is field selectable with jumper shunts included

ACCESSORIES ORDERING

Model #	Item #	Description
A/MOUNTING PLATE BEIGE R	106821	Wall Mounting Back Plate, Plastic, Beige ("R")
A/MOUNTING PLATE WHITE R	126386	Wall Mounting Back Plate, Plastic, White ("R")
A/MOUNTING PLATE WHITE R2	143369	Wall Mounting Back Plate, Plastic, White ("R2")
LOCKING COVER	107370	Clear Thermostat Guard, Locking Cover, Low Profile
A/ROOM-FOAM-PAD	125690	1/8" Foam Insulation Pad with Adhesive (3" x 2", Black)