

ROOM

Wall Mount Enclosures, Transmitter

The ACI Transmitter Room Series features a two-wire, 4 to 20 mA loop powered output with optional 3-Wire voltage output signals available. All transmitters include Zero and Span adjustments for field calibration and are calibrated using NIST Certified Calibration equipment. ACI recommends the use of an 18 to 22 AWG shielded cable for all temperature transmitter installations to reduce the chances of noise being introduced onto the signal lines. The room transmitters are designed to be mounted over a standard single gang junction box or hole in the wall. For best accuracy, ACI recommends the use of the A/TTM Series Matched transmitters with 3 or 5 Point NIST Calibration Certificate, since they include a second calibration step in which the RTD and transmitter are calibrated together as a system. A/TTM series matched transmitters include a foam pad to reduce the effects of self-heating from the transmitter and thermal drafts from within the wall. Optional Set Point, Override and Loop Powered LCD Display.

Applications: Space Temperature Sensing, Office Buildings, Schools, Gyms, Manufacturing Plants, Pharmaceutical, Hospitals, Data Centers

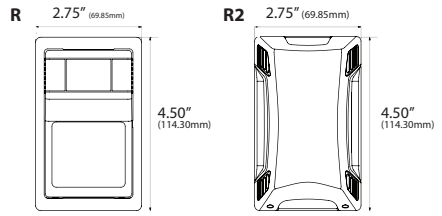
The ACI Transmitter Room Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's

PRODUCT SPECIFICATIONS

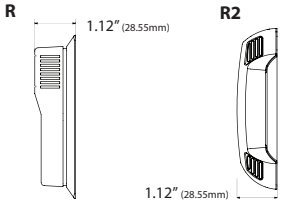
Transmitter Supply Voltage | Supply Current:	+8.5 to 32 VDC (Reverse Polarity Protected) | 25 mA minimum **250 Ohm Load:** +13.5 to 32 VDC | **500 Ohm Load:** +18.5 to 32 VDC **"-LCD" Loop Powered:** Add +7 VDC to 250/500 Ohm Load Supply Voltage above
Maximum Load Resistance:	(Terminal Voltage - 8.5 V) | 0.020 A
Output Signals:	**Current:** 4-20 mA (2-Wire Loop Powered) | **Voltage:** 1-5 VDC or 2-10 VDC (3-Wires)
Calibrated Transmitter Accuracy | Linearity[1]:	**Temp. Spans < 500°F (260°C):** +/- 0.2%
Temperature Drift[2]:	**Temp. Spans < 100°F (38°C):** +/- 0.04%/°F | **Temp. Spans > 100°F (38°C):** +/- 0.02%
TTM100/TTM1K Certification Points:	**3 Point NIST:** 20%, 50% & 80% of span | **5 Point NIST:** 20%, 35%, 50%, 65% & 80% of span
Warm Up Time | Warm Up Drift:	10 minutes | +/- 0.1%
Calibration Temperature Spans [1]:	**Minimum Temp. Span:** 50°F (28°C) | **Maximum Temp. Span:** 200°F (93°C)
Connections | Wire Size:	Screw Terminal Blocks (Polarity Sensitive) | 16 AWG (1.31 mm^2) to 26 AWG (0.129 mm^2)
Terminal Block Torque Rating:	0.37 ft-lb (0.5 N-3m) nominal
Override Contact Type | Contact Ratings:	Dry Contact "N/O" Contact | **Minimum:** 10 uA @ 1 VDC | **Maximum:** 50 mA @ 24 VDC
Set Point Accuracy:	+/- 10% | **4-20 mA:** 4 mA (Far Left) / 20 mA (Far Right)(DA-Direct Acting (Default)) 20 mA (Far Left) / 4 mA (Far Right)(RA-Reverse Acting (Optional))
Sensor Type | Sensor Curve | Sensing Points:	Platinum RTD | PTC (Postive Temperature Coefficient) | One
Number Wires | Wire Colors (TTM Series only):	Two | **A/TTM100-R/R2:** Brown/Brown | **A/TTM1K-R/R2:** Black/Black
Nominal Sensor Output @ 0°C (32°F):	**A/TT100/TTM100-R/R2:** 100 Ohms | **A/TT1K/TTM1K-R/R2:** 1000 Ohms
RTD Tolerance Class | Sensor Accuracy:	+/- 0.06% Class A | (**Tolerance Formula:** +/- °C = (0.002 * |t|)) where |t| is the absolute valuse of temperature above or below 0°C in °C
Din Standard | Temperature Coefficient:	DIN EN 60751 (IEC 751) | 3850 ppm / °C
Sensor Stability:	+/- 0.03% after 1000 hours @ 300°C (572°F)
LCD Display Input Signal:	4 to 20 mA Only (2-Wire Loop Powered)
LCD Display Accuracy:	+/- 1.0% of Calibrated Temperature Span or +/- Whichever is Greater
LCD Display Descriptor | Number of Digits:	°F (Fahrenheit) or °C (Celsius) | 3 1/2 Segment Display
LCD Display Life Expectancy:	50,000 Hours Minimum
Operating Temperature Range[3]:	35 to 122°F (1.5 to 50°C)
Storage Temperature Range[3]:	**Non-LCD:**-40 to 65°C (-40 to 149°F) | **LCD Display:** -10 to 65°C (14 to 149°F)
Operating Humitity Range:	5 to 95% RH non-condensing
Enclosure Specifications (Material Type, Color, UL Flammability Range):	**"-R2" Enclosure:** ABS Plastic | White | UL94-HB **"-R" Enclosure:** ABS Plastic | Beige | UL94-HB
Foam Pad Material | Flammability Rating (TTM Only):	Neoprene/EPDM/SBR Polymer | UL94-HBD; FMVSS-302; MIL-R-6130C
Product Dimentions (L x W x H):	4.50" (114.3 mm) x 2.78" (70.6 mm) x 1.00" (25.4 mm)
Product Weight:	**"-R/RS/RO" Series:** 0.17 lbs. (0.375 kg) | **"-RSO" Series:** 0.21 lbs. (0.46 kg) **"-R2/R2S/R2O" Series:** 0.19 lbs. (0.42 kg) | **"-R2SO" Series:** 0.23 lbs. (0.51 kg) **All LCD Display Units:** 0.174 lbs (0.079 kg)
Agency Approvals:	RoHS2, WEEE

Note[1]: Transmitter's calibrated at 71°F (22°C) nominal | **Note[2]:** Temperature Drift is referenced to 71°F (22°C) nominal calibration temperature | **Note[3]:** Temperature spans may go outside of the operating temperature range but the unit must be used within the operating temperature limit

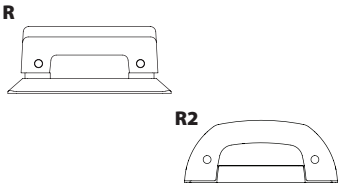
DIMENSIONAL DRAWING



Front View



Side View



Top View

CUSTOM ORDERING | STANDARD ACCURACY

		MODEL #
A. Sensor Series[1] *No Selection Required*	**A/** ——————————▶	**A/**
B. Model Series *Select One (1)*	**TT100** = 100 Ohm Platinum RTD | **TT1K** = 1K Ohm Platinum RTD	
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. Output Signal *Select One (1)*	**1** = 1 to 5 VDC | **2** = 2 to 10 VDC | **4** = 4 to 20 mA	
E. LCD Display[2] *Select One (1)*	**----** = No LCD Display | **LCD**[2] = With LCD Display (Only Available with "R" Style Enclosure)	
F. Calibrated Span	**Specify Span in °F or °C (Best Accuracy in 100°F Increments**[3]**)**	
Setpoint Configuration Options *Select Options below if RS, RSO, R2S or R2SO was selected as a Configuration (C)*		
1. Potentiometer *Select One (1)*	**4-20 mA**	
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]**:** Best transmitter accuracy with spans in 100°F Increments (ie. 0 to 100°F or 1.5 to 40°C)

CUSTOM ORDERING | HIGHER ACCURACY

		MODEL #
A. Sensor Series[1] *No Selection Required*	**A/** ——————————▶	**A/**
B. Model Series *Select One (1)*	**TTM100** = Matched 100Ω Platinum RTD | **TTM1K** = Matched 1KΩ Platinum RTD[2]	
C. Configuration *Select One (1)*	**R** = Room | **R2** = Room	
D. Output Signal *Select One (1)*	**1** = 1 to 5 VDC | **2** = 2 to 10 VDC | **4** = 4 to 20 mA	
E. Calibrated Span	**Specify Span in °F or °C (Best Accuracy in 100°F Increments**[3]**)**	

Note[1]**:** A/ part numbers come without logo. For custom logo, replace A/ with Company abbreviation. Please contact ACI **| Note**[2]**:** For TTM100 or TTM1K part numbers, the default NIST is 3 points / 5 points may be specified by using "-5PTNIST" at the end of any TTM part number. **| Note**[3]**:** Best transmitter accuracy with spans in 100°F Increments (ie. 0 to 100°F or 1.5 to 40°C)

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")

ACCESSORIES ORDERING (NIST)

Model #	Description
-5PTNIST	5 Point Calibration & Certificate for TTM parts