



# POTTED TT

## Calibrated Transmitter, No Sensor

The ACI Potted transmitter with the transmitter board encapsulated in epoxy for extra moisture and corrosion protection. ACI's epoxy is thermally conductive which allows the heat from the transmitter to dissipate more freely than would occur in air or with other conformal coatings and reduces hot spots by evenly distributing the heat over the entire PCB assembly. The potted transmitter can be ordered with a two-wire 4 to 20mA loop powered output signal or 3-wire 1 to 5V or 2 to 10V output based upon the ordered temperature span range. The transmitter can be used with any existing 100 or 1K ohm Platinum RTD sensor with a 385 temperature

coefficient and features flying leads for easy wiring. Zero and Span adjustments are standard for recalibration in the field when using NIST Certified equipment. ACI recommends the use of an 18 to 22 AWG shielded cable for all temperature transmitter installations to protect against the introduction of noise onto the signal lines. ACI does offer recalibration services for any transmitters sent back to us for a nominal fee.

**Applications:** Replacement Temperature Transmitters, High Moisture and Corrosive Environments, Conversion of existing Platinum 2 or 3 Wire RTD's to linear current or voltage output signal, transmit signals over long wire runs

**The ACI Potted Transmitter 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](http://www.workaci.com).**

### PRODUCT SPECIFICATIONS

<b>Transmitter Supply Voltage   Supply Current:</b>	+8.5 to 32 VDC (Reverse Polarity Protected)   25 mA minimum
	<b>250 Ohm Load:</b> +13.5 to 32 VDC   <b>500 Ohm Load:</b> +18.5 to 32 VDC
<b>Maximum Load Resistance:</b>	(Terminal Voltage - 8.5 V) / 0.020 A
<b>Transmitter Output Signals:</b>	<b>Current:</b> 4-20 mA (2-Wire, Loop Powered)   <b>Voltage:</b> 1-5 VDC or 2-10 VDC (3-Wires)
<b>Calibrated Accuracy   Linearity <sup>1</sup>:</b>	<b>Temp. Spans &lt; 500°F (260°C):</b> +/- 0.2%   <b>Temp. Spans &gt; 500°F (260°C):</b> +/- 0.5%
<b>Temperature Drift <sup>2</sup>:</b>	<b>Temp. Spans &lt; 100°F (38°C):</b> +/- 0.04%/°F   <b>Temp. Spans &gt; 100°F (38°C):</b> +/- 0.02%
<b>Calibrated Temperature Spans <sup>1</sup>:</b>	<b>Minimum Temp. Span:</b> 50°F (28°C)   <b>Maximum Temp. Span:</b> 1000°F (538°C)
<b>Sensor Type Accepted   Sensor Curve:</b>	Platinum RTD   PTC (Positive Temperature Coefficient)
<b>Sensor Resistance Characteristics (Nominal):</b>	<b>A/TT100 Series:</b> 100 Ohms @ 32°F (0°C)   <b>A/TT1K Series:</b> 1000 Ohms @ 32°F (0°C)
<b>Sensor Din Standard   Temperature Coefficient:</b>	DIN EN 60751 (IEC 751)   3850 ppm / °C
<b>Warm Up Time   Warm Up Drift:</b>	10 Minutes   +/- 0.1%
<b>Operating Temperature Range:</b>	-40°F to 185°F (-40 to 85°C)
<b>Storage Temperature Range:</b>	-40 to 80°C (-40 to 176°F)
<b>Operating Humidity Range:</b>	0 to 90%, non-condensing
<b>Potting Material:</b>	Two (2) part epoxy / resin
<b>Dielectric Strength:</b>	420V / mil
<b>Thermal Conductivity:</b>	0.642 w / m.k
<b>Hardness, Shore Scale:</b>	92D ASTM D 2240
<b>Mounting Configuration:</b>	Double Sided Tape
<b>Product Dimensions (L x W x H)   Product Weight:</b>	2.30" (58.42 mm) x 1.478" (37.54 mm) x 0.775" (19.69 mm)   0.15 lbs. (68.04 g)
<b>Agency Approvals:</b>	RoHS2, WEEE

**Note <sup>1</sup>:** Transmitter's calibrated at 71°F (22°C) nominal | **Note <sup>2</sup>:** Temperature Drift is referenced to 71°F nominal calibration temperature

### STANDARD ORDERING

Model # Example: **A/TT100-BO-4-POTTED** -OR- **118464**

Model #	Item #	Description
<b>A/TT100-BO-4-POTTED</b>	118464	Potted Transmitter, Board Only for 100 Ohm Platinum RTD Sensor
<b>A/TT1K-BO-4-POTTED</b>	129768	Potted Transmitter, Board Only for 1000 Ohm Platinum RTD Sensor

**For Additional Potted TT Configurations & Ordering, Contact ACI (888) 967-5224**

