



SUN SHIELD

Weather Proof, Relative Humidity, Transmitter

The ACI Sun Shield is a reliable solution for protecting both the temperature and relative humidity sensors when mounted in a location where an overhang or shade is unavailable. It consists of nine (9) molded, white plastic plates which are used to reduce the thermal effect of the sun and increasing the air flow between the plates. The Sun Shield also provides an added level of protection for the sensors from rain and snow. The Sun Shield is available with our +/-2% RH transmitter and our TT100 or TT1K Series 4-20 mA output temperature transmitters. NIST Calibration Certificates (RH only) are available.

Applications: Outdoor Humidity and Temperature Monitoring

The ACI RH TT Sun Shield 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.

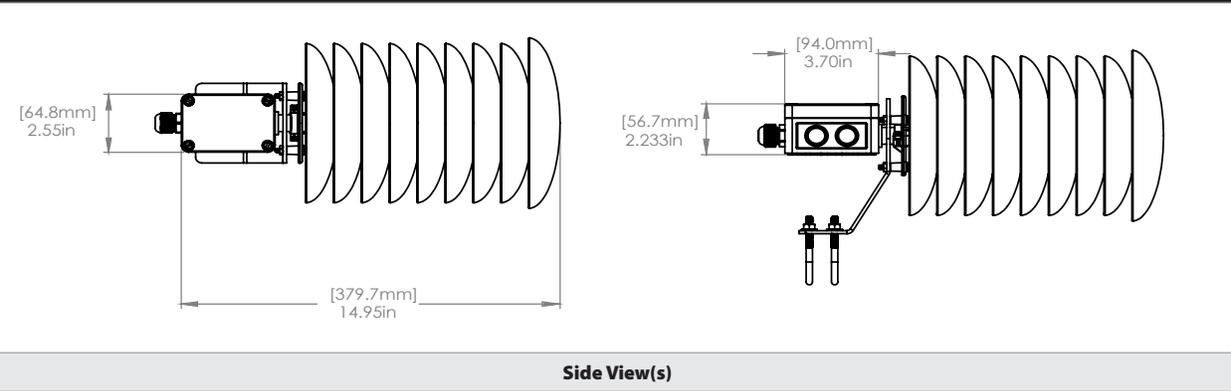
PRODUCT SPECIFICATIONS

RH Supply Voltage (Reverse Polarity Protected):	4-20 mA: 250 Ohm Load: 15 - 40 VDC / 18 - 28 VAC 500 Ohm Load: 18 - 40 VDC / 18 - 28 VAC 0-5 VDC: 12 - 40 VDC / 18 - 28 VAC 0-10 VDC: 18 - 40 VDC / 18 - 28 VAC
RH Supply Current (VA):	Voltage Output: 8 mA maximum (0.32 VA) Current Output: 24 mA maximum (0.83 VA)
RH Output Load Resistance:	4-20 mA: 700 Ohms maximum 0-5 VDC or 0-10 VDC: 4K Ohms Minimum
RH Output Signal:	2-wire: 4 - 20 mA (Factory Default) 3-wire: 0-5 or 0-10 VDC & 4 - 20 mA (Field Selectable)
RH Accuracy @ 77°F (25°C):	+/- 2% from 10 to 95%
RH Measurement Range:	0-100%
Operating RH Range:	0 to 95% RH, non-condensing (Conformally Coated PCB's)
Operating Temperature Range:	-40 to 140°F (-40 to 60°C)
Storage Temperature Range:	-40 to 149°F (-40 to 65°C)
RH Stability Repeatability Sensitivity:	Less than 2% drift / 5 years 0.5% RH 0.1% RH
RH Response Time (T63):	20 Seconds Typical
RH Sensor Type:	Capacitive with Hydrophobic Filter
RH Transmitter Stabilization Time:	30 Minutes (Recommended time before doing accuracy verification)
RH Connections:	Screw Terminal Blocks (Polarity Sensitive)
Wire Size:	16 (1.31 mm ²) to 26 AWG (0.129 mm ²)
RH Terminal Block Torque Rating:	4.43 to 5.31 lb-in (0.5 to 0.6 Nm)
RH NIST Test Points:	Default Test Points: 3 Points (20%, 50% & 80%)
TT 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
TT Maximum Load Resistance:	(Terminal Voltage - 8.5 V) 0.020 A
TT Output Signals:	Current Output: 4-20 mA (2-Wire Loop Powered) Voltage Output: 1-5 VDC or 2-10 VDC (3-Wires)
TT Calibrated Accuracy Linearity ¹:	Temperature Spans < 500°F (260°C): +/- 0.2% Temperature Spans > 500°F (260°C): +/- 0.5%
TT Temperature Drift ²:	Temperature Spans < 100°F (38°C): +/- 0.04%/°F Temperature Spans > 100°F (38°C): +/- 0.02%/°F
TT Warm Up Time Warm Up Drift:	10 Minutes +/- 0.1%
TT Operating Temperature Range:	-40 to 185°F (-40 to 85°C)
RH Range:	0 to 100% RH
Platinum RTD (PTC) Number Wires Wire Colors:	Two A/TT100 Series: Brown/Brown A/TT1K Series: Black/Black
Platinum RTD Sensor Output @ 32°F (0°C):	A/TT100 Series: 100 Ohms Nominal A/TT1K Series: 1000 Ohms Nominal
Platinum RTD Tolerance Class Accuracy:	+/- 0.06% Class A Tolerance Formula: +/- °C = (0.15°C + (0.002 * t)) where t is the absolute value of Temperature above or below 0°C in °C
Platinum RTD Sensor Stability:	+/- 0.03% after 1000 Hours @ 572°F (300°C)
Platinum RTD Response Time (63% Step Change):	8 Seconds nominal
Enclosure Specifications (Material, Flammability, Temperature, NEMA/IP Rating):	"-4X" Enclosure: Polystyrene Plastic; UL94-V2; -40 to 158°F (-40 to 70°C); NEMA 4X (IP 66)
Sensing Tube Dimensions (Length x Diameter):	6.83" (173.48 mm) x 0.740" (18.80mm)
Product Dimensions (L x W x D):	14.95" (379.7 mm) x 7.50" (190.50 mm)
Product Weight:	4.16 lbs(1.89 kg)
Agency Approvals:	RoHS2, WEEE





DIMENSIONAL DRAWING



Side View(s)

CUSTOM ORDERING

Model # Example: **A/** **RH2** **TT1K** **O-SUN** **2** **0-100°F**

MODEL #

A. Sensor Series <i>No Selection Required</i>	A/	▶	A/
B. Accuracy <i>No Selection Required</i>	RH2 = +/-2%	▶	RH2
C. Temperature Sensor <i>Select One (1)</i>	TT100 = 100 Ohms TT1K = 1K Ohms		
D. Configuration <i>Select One (1)</i>	O-SUN = Outside Sun Shield (NEMA 4X)	▶	O-SUN
E. TT Output Signal <i>Select One (1)</i>	--- = 4 to 20 mA (Default) 1 = 1 to 5 VDC* 2 = 2 to 10 VDC*		
F. Calibrated Span	Specify Span in °F or °C (Best Accuracy in 100°F Increments)		
G. NIST (RH Only) <i>Select One(1)</i>	---- = No NIST Certificate NIST = NIST Certificate (3 Points)		

Note*: A Temperature Transmitter Output of 1-5 VDC or 2-10 VDC would have a RH Output of 0-5 VDC or 0-10 VDC