SUN SHIELD

Weather Proof, Relative Humidity, Platinum RTD

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, a 100 or 1K ohm standard Platinum RTD, and has field selectable outputs of 4-20mA, 0-5VDC and 0-10VDC. Three point NIST Calibration Certificates are available.

Applications: Outdoor Humidity and Temperature Monitoring

The ACI RH Platinum RTDs 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, www.workaci.com.
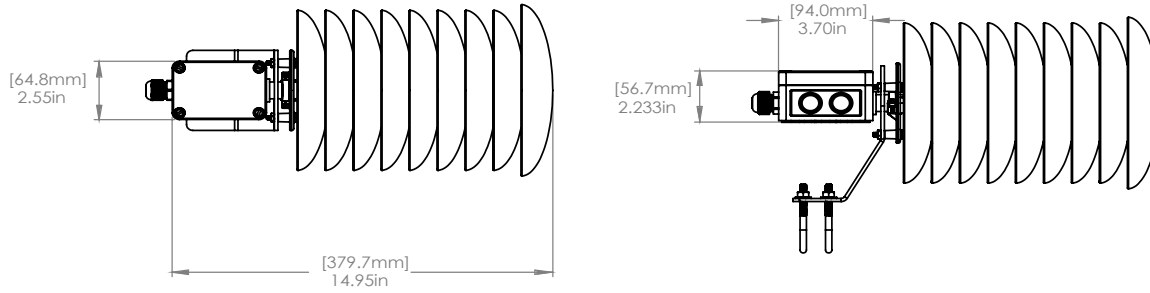
PRODUCT SPECIFICATIONS

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 and 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%) **1% NIST Test Points:** 5 Points within selected 20% Range (ie. 30%-50% are 30, 35, 40, 45 & 50)
Platinum RTD (PTC) | Number Wires (Wire Colors):	**RHx-100-2W Series:** (Brown/Brown) & **RHx-2W-1K Series:** (Black/Black) **RHx-100-3W Series:** (Brown/Brown/Black) & **RHx-3W-1K Series:** (Black/Black/White)
Platinum RTD Output @ 32°F (0°C):	**RHx-100-xW-O-SUN Series:** 100 Ohms nominal **RHx-1K-xW-O-SUN Series:** 1000 Ohms nominal (x = # of wires)
Platinum RTD Tolerance Class:	+/-0.06% Class A | **Tolerance Formula:** +/-°C = (0.15°C + (0.002 * |t|)
Platinum RTD Din Standard:	DIN EN 60751 (IEC 751)
Temperature Coefficient:	3850 ppm/ °C
Platinum RTD Stability:	+/-0.03% after 1000 Hours @ 572°F (300°C)
Lead Wire Length | Conductor Size:	14" (35.6 cm) | 22 AWG (0.65 mm)
Insulation | Rating:	Etched Teflon (PTFE) Colored Leads | Mil Spec 16878/4 Type E
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:	CE, RoHS2, WEEE

DIMENSIONAL DRAWING

[64.8mm]
2.55in

[379.7mm]
14.95in

[94.0mm]
3.70in

[56.7mm]
2.233in

Side View(s)

CUSTOM ORDERING

Model # Example:

A/	RH2	1K	2W	O-SUN		NIST
A.	B.	C.	D.	E.	F.	G.

		MODEL #
A. Sensor Series *No Selection Required*	**A/** ➡	**A/**
B. Accuracy *No Selection Required*	**RH2** = +/-2% ➡	**RH2**
C. Model Series *Select One (1)*	**100** = 100 Ohm Platinum RTD │ **1K** = 1K Ohm Platinum RTD	
D. Number of Wires *Select One (1)*	**2W** = Two Wires │ **3W** = Three Wires	
E. Configuration *No Selection Required*	**O-SUN** = Outside Sun Shield (NEMA 4X) ➡	**O-SUN**
F. Output Signal *Select One (1)*	**----** = 4 to 20 mA (Default) │ 0 to 10 VDC (Field Selectable) │ 0 to 5 VDC (Field Selectable)	
G. NIST (Temperature & RH) *Select One (1)*	**----** = No NIST Certificate │ **NIST** = NIST Certificate (3 Points)	

Note: Outputs are field selectable between 4-20 mA, 0-5 VDC & 0-10 VDC

RoHS
COMPLIANT
2002/95/EC