



RH REMOTE PROBES



Relative Humidity (RH), Remote Probe

The ACI Relative Humidity Remote Probe utilizes a thermoset polymer capacitive sensing element with a hydrophobic filter to deliver a proportional relative humidity analog output. The remote probe wiring harness comes in lengths of 3, 6, 10, or 20 feet to provide mounting flexibility for your remote sensing applications. Single point field calibration can be done on the humidity transmitter, by using the increment and decrement dip switches. Each toggle of the increment and decrement switches will allow for a $\pm 0.5\%$ RH increase or decrease. Calibration of the RH transmitters electronics can also be done using both the Zero and Span potentiometers depending on whether it is a current or voltage output device. All models feature conformally coated circuit boards to improve the reliability of the product in both high moisture and mildly corrosive atmospheres. A vinyl cap is provided to

place over the sintered filter in wash down applications to protect the sensing element from getting moisture sprayed directly on the sensor. Three point NIST Calibration Certificates are available.

Applications: Clean Rooms, Process Control, Environmental Chambers, Stability Chambers, Pharmaceutical Labs, Remote Sensing Applications

The ACI RH Remote Probes are 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.

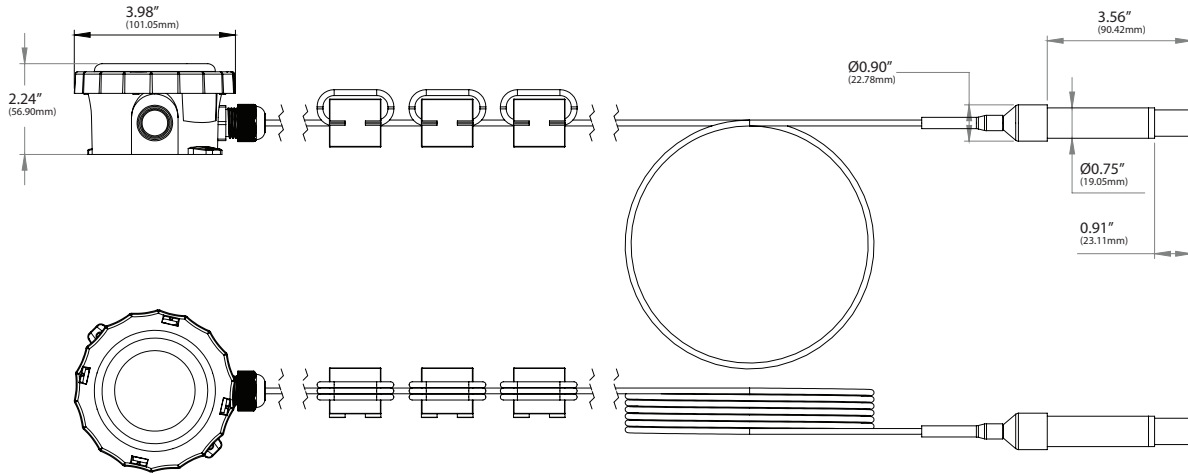
PRODUCT SPECIFICATIONS

Humidity 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):	+/- 1% over 20% RH Range between 20 to 90% +/- 2%, or 3% 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:	-13 to 140°F (-25 to 60°C)
Storage Temperature Range:	-13 to 149°F (-25 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 Wire Size:	Screw Terminal Blocks (Polarity Sensitive) 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%)
Sensor Lead Length:	3.0' (0.914 m), 6.0' (1.829 m), 10.0' (3.048 m), 20.0' (6.096 m)
Cable Operating Temperature Range:	32 to 167°F (0 to 75°C)
Minimum Cable Bend Radius:	1.92" (48.77 mm) or 10x the Cable Diameter
Cable Ratings Cable Jacket Material:	UL(CMP, CL3P, FPLP); CSA (CMP, FT6), Plenum Rated Polyvinyl Chloride (PVC)
Enclosure Specifications (Material, Flammability, Temperature, NEMA/IP Ratings):	"-EH" Enclosure: ABS Plastic; UL94-V0; -40 to 140°F (-40 to 60°C)
Sensing Tube Material	304 Series Stainless Steel
Filter Material:	304 Series Stainless Steel
Enclosure Dimensions:	"-EH" Enclosure (Diameter x Depth): 4.30" (19.05 mm) x 2.12" (53.85 mm)
Probe Dimensions (Length x Diameter):	5.12" (130.10 mm) x 0.750" (19.05 mm)
Product Weight:	A/RHx-RP2-EH Series: 1.20 lbs. (0.545 kg)
Agency Approvals:	UKCA, CE, RoHS2, WEEE



DIMENSIONAL DRAWING

Remote Probe [EH]



Standard View

STANDARD ORDERING

Model # Example: **A/RH3-RP2-20'-EH** -OR- **137064**

Model #	Item #	Description
A/RH3-RP2-3'-EH	144798	RH Remote Probe, 3 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable)
A/RH3-RP2-3'-EH-NIST	148196	RH Remote Probe, 3 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable), NIST Certificate
A/RH2-RP2-6'-EH	126625	RH Remote Probe, 6 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable)
A/RH2-RP2-6'-EH-NIST	148197	RH Remote Probe, 6 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable), NIST Certificate
A/RH2-RP2-10'-EH	125968	RH Remote Probe, 10 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable)
A/RH2-RP2-10'-EH-NIST	148198	RH Remote Probe, 10 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable), NIST Certificate
A/RH2-RP2-20'-EH	125969	RH Remote Probe, 20 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable)
A/RH2-RP2-20'-EH-NIST	148199	RH Remote Probe, 20 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable), NIST Certificate
A/RH3-RP2-20'-EH	137064	RH Remote Probe, 20 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable)
A/RH3-RP2-20'-EH-NIST	148200	RH Remote Probe, 20 ft Cable, Euro Enclosure, 4-20 mA Output (default), 0-5 VDC or 0-10 VDC (selectable), NIST Certificate

CUSTOM ORDERING

Model # Example: **A/** **RH1** **RP2-6'** **EH** **----**

MODEL #

A. Sensor Series No Selection Required	A/ ▶	A/
B. Accuracy Select One (1)	RH1 = +/-1% (20% Range between 20 to 90% RH) RH2 = +/-2% RH3 = +/-3%	
C. Configuration Select One (1)	RP2-3' = 3' Cable RP2-6' = 6' Cable RP2-10' = 10' Cable RP2-20' = 20' Cable	
D. Enclosure No Selection Required	EH = Euro Enclosure ▶	EH
E. Output Signal* Select One (1)	---- = 4 to 20 mA (Default) 0 to 10 VDC (Field Selectable) 0 to 5 VDC (Field Selectable)	
F. NIST (Temperature & RH) Select One (1)	Specify Span in °F or °C (Best Accuracy in 100°F Increments)	

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



ACCESSORIES ORDERING

Model # Example: **A/SINTERED FILTER** -OR- **143433**

Model #	Item #	Description
A/SINTERED FILTER	143433	3/8" Sintered Filter for RH Duct/Stainless Plate/Remote Probes
A/1" VINYL PULL CAP	143462	1" EZ Vinyl Filter Cover for RH Stainless Plates & Remote Probes