Model SRH
Operating Instructions



1.0 General information

Every SRH humidity sensor product is tested and calibrated before shipment. This product line expands the solution opportunities for the HVAC/building automation market and other relative humidity monitoring applications. All models utilize a field-replaceable sensor module, NIST traceability, accuracies of ±2%, ±3%, ±5%, active or passive temperature sensing, and a durable capacitive sensor capable of full-scale 0 to 99% RH measurement.

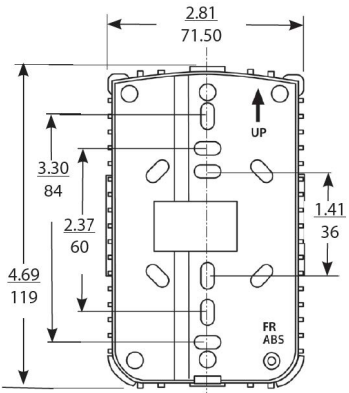
2.0 Mechanical installation

2.1 Environment

The operating temperature limits of the SRH model are as follows:
Operating Temperature Range -40°F to 140°F (-40 to 60°C)
Storage Temperature -40°F to 158°F (-40 to 70°C)

2.2 Wall mount

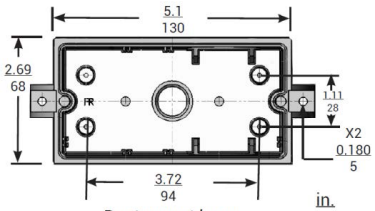
It's important to find a place within a room where the transmitter can be exposed to unrestricted air circulation that will represent the average humidity and temperature within that space. Try to avoid any locations that may be exposed to fumes, extreme temperatures , and high moister content. Also, make sure the location is on an indoor wall that is about 4 to 6 feet above the floor. For ease of mounting, the wall mount humidity transmitter was designed to install onto a standard single gang electrical switch box or directly onto a wall.



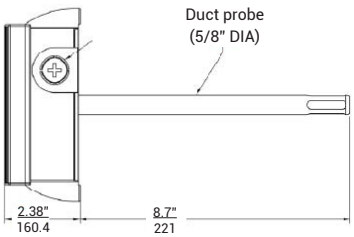
Wall Mount - Back Plate
in.
(mm)

2.3 Duct mount

For proper operation, it is necessary to locate the transmitter in the center of a section of duct that receives adequate air flow. Conversely, it must be free of fans, corners, heating/cooling coils, or any other equipment/ environmentals that could adversely affect relative humidity measurement. Insert sensing probe through hole (5/8" dia. minimum) and attach full assembly via the two mounting holes on each side.

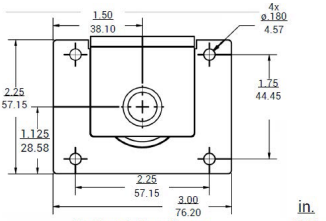


Duct mount base
in.
mm



2.4 Optional duct flange

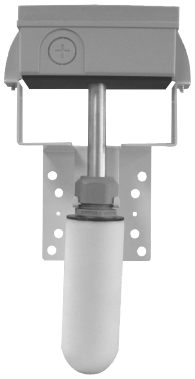
The optional duct flange (P/N: 888415) may be used to center the tip of the SRH in the duct work.



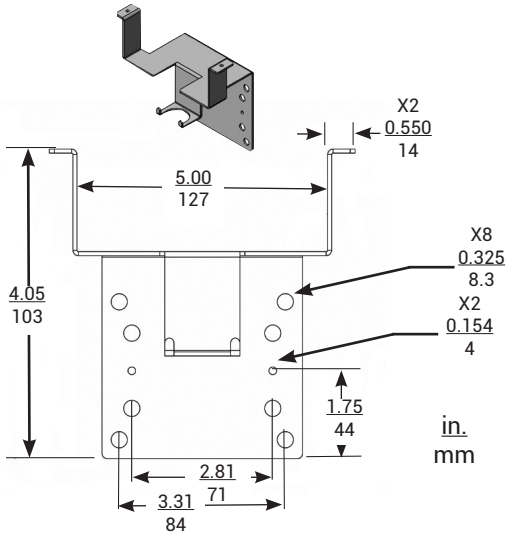
Optional duct flange
(top view)

2.5 Outside air mount

The outside air configuration is supplied with a mounting bracket and two 10-16 x 1/2' hex head screws. Locate a position on the building that is clear of exhaust ducts, high exposure to the sun, direct rain, or other outdoor factors that could adversely affect the operation of the unit. Ideally, a sheltered area (under an eave) on the north side of the building is best to protect from the above effects. Mounting with the probe point downwards is preferred.



Model SRH
Outside air unit
shown w/porous weather shield



Outside air mounting plate

3.0 Electrical installation

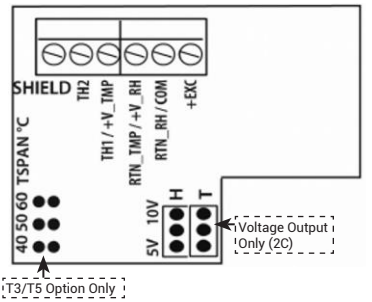
3.1 Wiring

Match your transmitter with the corresponding diagrams and set the jumpers and wire accordingly. Ensure that all of the installation and wiring is in compliance with all national and local codes. Use 18-22 AWG shielded, twisted pair, copper conductors.

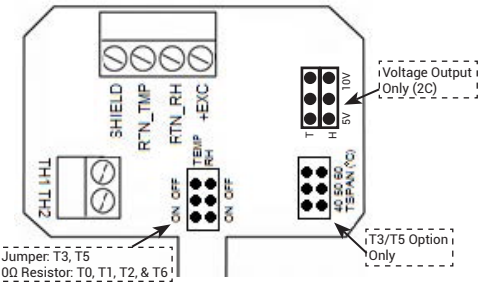
Caution: Do not bundle transmitter wires with AC power wires. Shield must be connected to earth ground for CE compliance.

3.2 Connector/jumper locations

Wall Mount Version



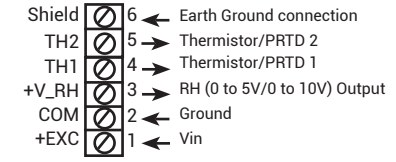
Duct & Outdoor Air mount Version



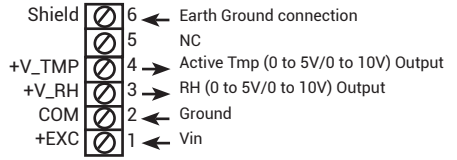
3.3 Voltage Output Version (2C)

Wall Mount Version

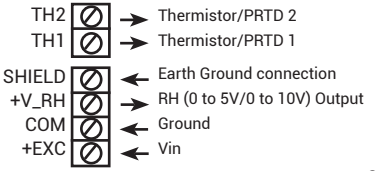
Wiring 0 to 5 V/0 to 10 V Output Units (3-wire/ T0, T1, T2 & T6)



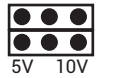
Wiring 0 to 5 V/0 -10 V Output Units (4-wire/ T2 & T5)

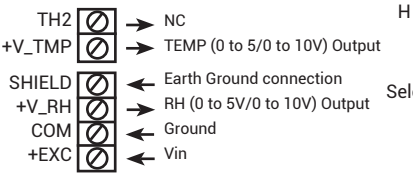


Duct & Outdoor Air mount Version

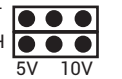


Selectable outputs





Selectable outputs



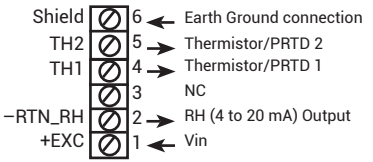
Selectable Tspan



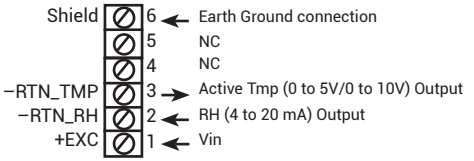
3.4 Current Output Version (11)

Wall Mount Version

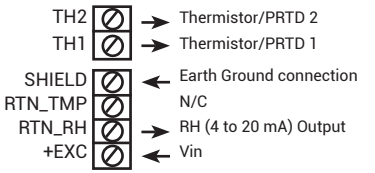
Wiring 4 to 20 mA Output Units (2-wire/ T0, T1, T2 & T6)



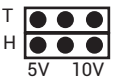
Wiring 4 to 20mA Output Units (3-wire/ T3 & T5)

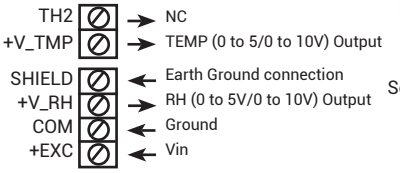


Duct & Outdoor Air mount Version

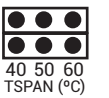


Selectable outputs



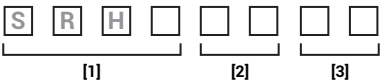


Selectable Tspan



4.0 Replace Sensor Tip

Once installed in the field, no calibration of the units is required. Instead, this product suite features field-replaceable sensor modules that allow the end user to replace the sensors on-site. **Replacement tip options must match the base SRH unit.**



[1]

Model	
SRH1	Model SRH

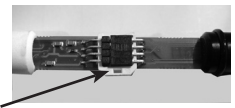
[2]

Accuracy	
2P	2%
3P	3%
5P	5%

[3]

Temperature outputs	
T0	None (RH only)
T1	10K Ω NTC (passive)
T2	1000 Ω RTD (passive)
T3	-50 to 60°C (active)
T5	-10 to 60°C (active)
T6	10K Ω NTC (passive)

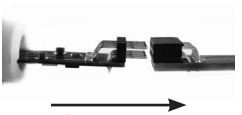
1) Remove Retaining Clip



White retaining clip

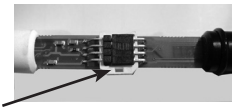
Top

2) Insert Replacement Tip



Side view
(PCB to PCB)

3) Install Retaining Clip



White retaining clip

Top view

5.0 Limited warranty & limitation of repair

SETRA warrants its products to be free from defects in materials and workmanship, subject to the following terms and conditions: Without charge, SETRA will repair or replace products found to be defective in materials or workmanship within the warranty period; provided that:

a) the product has not been subjected to abuse, neglect, accident, incorrect wiring not our own, improper installation or servicing , or use in violation of instructions furnished by SETRA;

b) the product has not been repaired or altered by anyone except SETRA or its authorized service agencies;

c) the serial number or date code has not been removed, defaced, or otherwise changed; and

d) examination discloses, in the judgment of SETRA, the defect in materials or workmanship developed under normal installation, use and service;

e) SETRA is notified in advance of and the product is returned to SETRA transportation prepaid.

Unless otherwise specified in a manual or warranty card, or agreed to in a writing signed by a SETRA officer, SETRA pressure and acceleration products shall be warranted for one year from date of sale.

The foregoing warranty is in lieu of all warranties, express, implied or statutory, including but not limited to, any implied warranty of merchantability for a particular purpose.

SETRA's liability for breach of warranty is limited to repair or replacement, or if the goods cannot be repaired or replaced, to a refund of the purchase price.

SETRA's liability for all other breaches is limited to a refund of the purchase price. In no instance shall SETRA be liable for incidental or consequential damages arising from a breach of warranty, or from the use or installation of its products.

No representative or person is authorized to give any warranty other than as set out above or to assume for SETRA any other liability in connection with the sale of its products.

For all CE technical questions, contact Setra Systems, USA. EU customers may contact out EU representative Hengstler GmbH, Uhlandstr . 49, 78554 Aldingen , Germany (Tel: +49 7424 890, Fax: +49 7424 89500

Please contact a Setra application engineer (800-257-3872, 978-263-1400) before returning unit for repair to review information relative to your application. Many times only minor field adjustments may be necessary. When returning a product to Setra, the material should be carefully packaged and shipped prepaid address below. To request a RMA please go to: www.setra.com/support/service

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