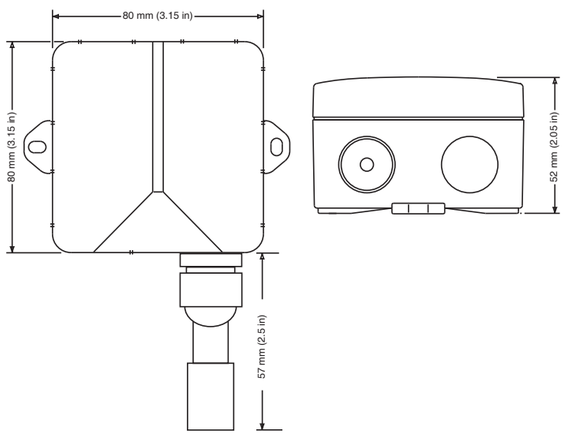
INSTALLATION INSTRUCTIONS

HO, Outside Air
RH and RH/T Transmitters

IMPORTANT WARNINGS

- Only qualified trade installers should install this product
- This product is not intended for life-safety applications
- Do not install in hazardous or classified locations
- The installer is responsible for all applicable codes
- De-energize power supply prior to installation or service

DIMENSIONS



PRODUCT APPLICATION LIMITATION:
Senva products are not designed for life or safety applications. Senva products are not intended for use in critical applications such as nuclear facilities, human implantable device or life support. Senva is not liable, in whole or in part, for any claims or damages arising from such uses.

INSTALLATION

1. Locate sensor outside under eave on north side of building to prevent excessive solar heating and exposure to rain.

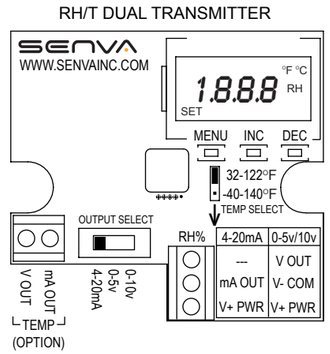
2. Secure enclosure to building.

3. Select output type using "OUTPUT SELECT" switch.

4. Wire sensor as indicated for 3-wire 0-10v/0-5v operation or 2-wire 4-20mA operation.

5. Select temperature output range using "TEMP SELECT" jumper.

RH/T DUAL TRANSMITTER



4-20mA wiring:

mA OUT = 4-20mA output return

V+ PWR = Loop supply excitation voltage

0-5v/0-10v wiring:

V OUT = Voltage output, 0-5 or 10vdc

V- COM = Ground/Common

V+ PWR = Power supply excitation voltage

SETUP

In normal operation, display toggles between RH% and Temp.

Press MENU button to select parameter to set:

Temp units	°F or °C
RH offset*	-5 to 5% RH in 0.1% RH increments
Temp offset	-5 to 5° in 0.1° increments

Press INC or DEC to change value of selected parameter.
Press MENU button to move to next parameter.
Settings are saved automatically.

* See CALIBRATION section prior to making adjustments to RH offset.

SPECIFICATIONS

Power supply	3-wire voltage mode (0-5v/10v) 2-wire current mode (4-20mA)	12-30vdc/24vac (1), 15mA max. 12-30vdc, 30mA max.
Outputs	RH and Temperature (option)	3-wire 0-5v/10v or 2-wire 4-20mA (selectable)
Output scaling	RH	0-100%RH
	Temperature (jumper selectable)	32-122°F (0-50°C) or -40-140 °F (-50-50°C)
Thermistor/RTD options		See ordering table
Media filter		Sintered stainless steel
Relative Humidity	Accuracy	2% models, +/-2% over 10 to 90% range
		3% models, +/-3% over 20 to 80% range
	Resolution	0.05%RH
	Hysteresis	+/-1%RH
	Non-linearity	Factory linearized <1%RH
	Temperature coefficient	Fully compensated by on-board sensor
	Response time (2)	30s
	Output update rate	2s
	Operating range	0 to 100%RH
	Long term drift	<0.5%RH per year
	Operating conditions (3)	-20 to 60°C @ RH >90%
		-20 to 80°C @ RH = 50%
Temperature	Accuracy, (-20 to 70oC range)	2% models, <+/-1°C; 0.5°C typ@25°C
		3% models, <+/-2°C; 0.5°C typ@25°C
	Resolution	0.01°C
	Repeatability	+/-0.1°C
	Response time (2)	30s
	Output update rate	2s
	Operating range	-40 to 120°C (sensor only)

(1) One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.
(2) Time for reaching 63% of reading at 25oC and 1 m/s airflow.
(3) Long term exposures to conditions outside normal range or high humidity may temprarily offset the RH reading (+3%RH after 60 hours.)

TROUBLESHOOTING

Symptom	Solution
No output	Check wiring. Ensure power supply meets requirements.
Temp or RH reading error	Verify control panel software is configured for correct output scaling.
	Verify accuracy of test instrument. Observe installation and calibration guidelines
	Verify unit is located out of direct sunlight.
	Perform calibration only if necessary.
Sensor damage, contamination, or long-term drift	Replace sensor element. Consult factory for ordering information.

CALIBRATION

Senva RH sensors are factory calibrated to NIST traceable standards. No field calibration is necessary or recommended. However, to facilitate compliance with job requirements and commissioning procedures, provisions for field calibration are provided:

1. Locate calibration instrument and sensor in close proximity to each other in a controlled environment free of drafts, people, and equipment to reduce influence on RH and temperature.

2. Compare reading of sensor to calibration instrument, and note difference.

3. Refer to SETUP section to change RH offset as needed. Set RH offset to zero to restore factory calibration.

NOTE: In case of damage, contamination, or long-term drift, sensor element may be replaced. Consult factory for ordering information and instructions.