

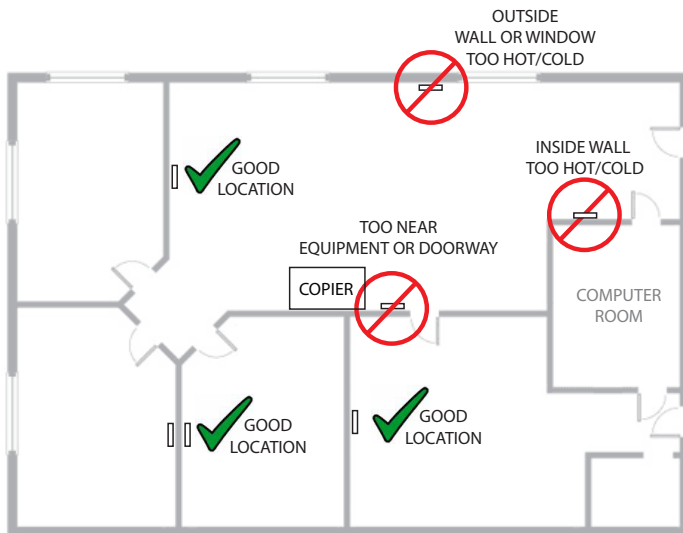
INSTALLATION INSTRUCTIONS

HR, Designer Series Room RH & 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



PRODUCT APPLICATION LIMITATION:

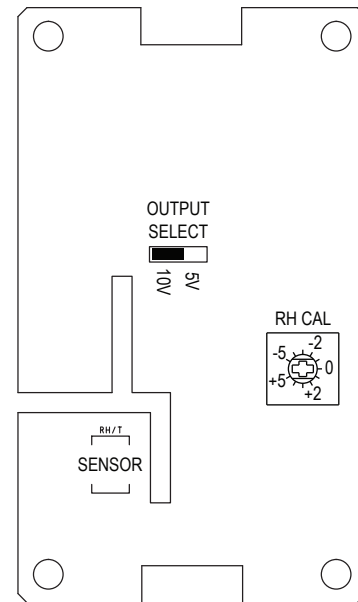
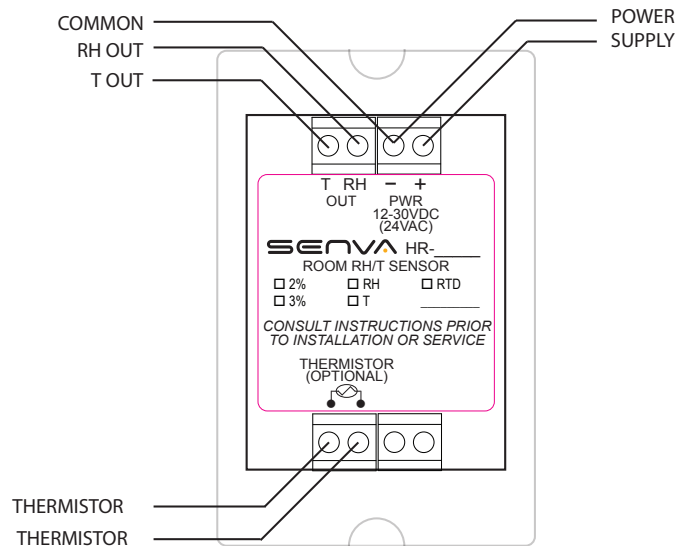
Senva products are not designed for life or safety applications. Senva products are not intended for use in critical applications such as nuclear facilities, human implantable device or life support. Senva is not liable, in whole or in part, for any claims or damages arising from such uses.

INSTALLATION

1. IMPORTANT! Locate sensor in an area away from ventilation sources and heat generating equipment and appliances. Sensor should be mounted at light switch height in a vertical orientation. Use insulating material behind sensor to ensure reading accuracy.

NOTE: Do not install sensor in multi-gang electrical boxes with line voltage or other electrical devices.

2. Wire sensor as shown and set the jumper for 0-5v or 0-10v operation:



3. Install insulation in junction box, then install base plate and sensor assembly. Sensor must be installed in the orientation shown, with sensor near bottom left corner.

4. Snap on decorative trim ring to complete installation.

SPECIFICATIONS

Power supply		12-30vdc/24vac ⁽¹⁾ , 15mA max.	
Outputs	RH and Temperature (option)	3-wire 0-5v or 0-10v ⁽⁴⁾ (jumper)	
Output scaling	RH	0-100%RH	
	Temperature	50-95°F (10-35°C)	
Thermistor/RTD options		See ordering table	
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 (non-condensing)	
	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 temporarily offset the RH reading (+3%RH after 60 hours.)

(4) 15-30vdc/24vac power supply voltage required for 10 volt output.

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 away from sources of hot/cold.
	Install insulation foam gasket provided to prevent thermal conduction from inside wall.
	Perform calibration only if necessary.

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 output of sensor to calibration instrument, and note difference. (In 0-10v mode, 1v = 10%RH)
3. Using a small, flat-blade screwdriver, adjust RH CAL pot as needed up to +/- 5%RH. Factory calibration may be restored by turning adjustment back to 0.