

HW Series Wall Mount Humidity Sensors 1%, 2%, 3%, or 5% Accuracy

NIST certificates available for 1% and 2% Models



Compact room sensor can be surface or single gang mounted

HW Series wall mount humidity transmitters combine state of the art digital electronic design with an esthetically pleasing enclosure making them ideal for space monitoring. In addition, they provide excellent accuracy, long-term stability and are the best in the industry for serviceability. The thin-film capacitive HS sensor elements are factory calibrated using NIST traceable calibration equipment, are field replaceable, and never require field calibration. LCD models provide local display (alternating) of humidity and temperature when ordered with the temperature transmitter.

Reduce installation costs with combination sensors

- Monitor humidity and temperature with a single device—reduce installation cost
- Fully interchangeable RH sensor element—calibration-free
- Semiconductor temperature transmitter or popular thermistor/RTD sensors available

Applications

- Energy management systems
- HVAC control for improved comfort and energy savings
- Museums, schools, printing shops and other locations requiring humidity control
- Facilitate compliance with ASHRAE standards for environmental control and indoor air quality

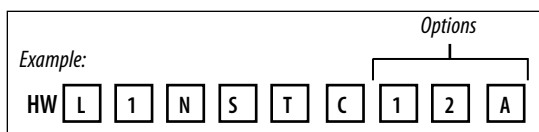
Calibration-free interchangeable NIST traceable HS element

- Replace digital sensor quickly without calibration...maintain accuracy and eliminate downtime
- Multi-point digital calibration to NIST standards
- Recovers from 100% saturation...no damage to sensor
- Field-selectable two-wire 4-20mA or 3-wire 0-5V/0-10V output

ORDERING INFORMATION

HW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	(Display)	(Accuracy)	(NIST)	(US or EU)	(Temp.)	(Sensor Type)
	L = LCD X = No	1 = 1% 2 = 2% 3 = 3% 5 = 5%	N = NIST X = No	S = Standard C = CE	T = Temp X = No (Stop here)	A = Transmitter: 50° - 95°F (10° - 35°C) B = 100R Platinum RTD C = 1k Platinum RTD D = 10k T2 Thermistor E = 2.2k Thermistor F = 3k Thermistor H = 10k T3 Thermistor J = 10k Dale Thermistor K = 10k w/11k with Shunt Thermistor M = 20k NTC Thermistor N = 1800 ohm TAC, Thermistor R = 10k US, Thermistor S = 10k 3A1B, Thermistor

Options Available		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Temp Cal Cert)	(Option)	(Value)
X = No 1 = 1pt Cal 2 = 2pt Cal	1 = Push Button Override 2 = Set Point Slider 3 = Push Button Override and Set Point Slider	A = 1K F = 10K G = 20K K = 50K M = 100K



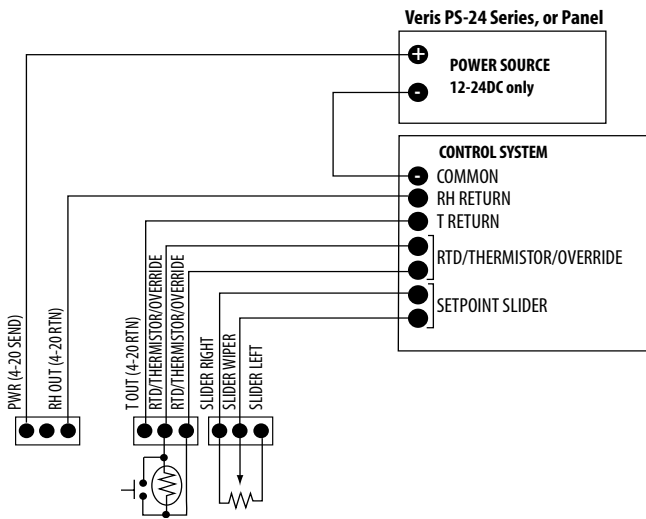
ACCESSORIES

Water guard...See page 205

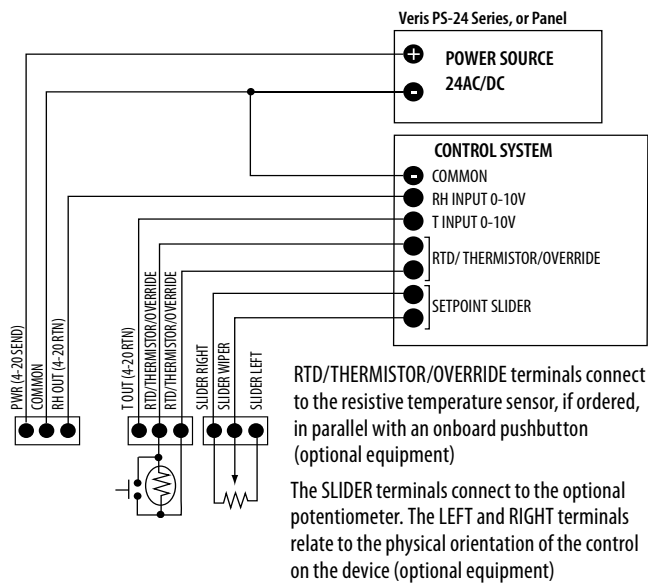


WIRING DIAGRAMS

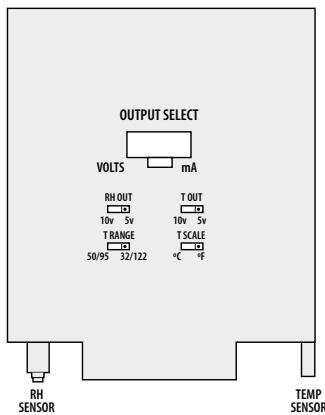
Current Output (2-Wire, 4-20mA)



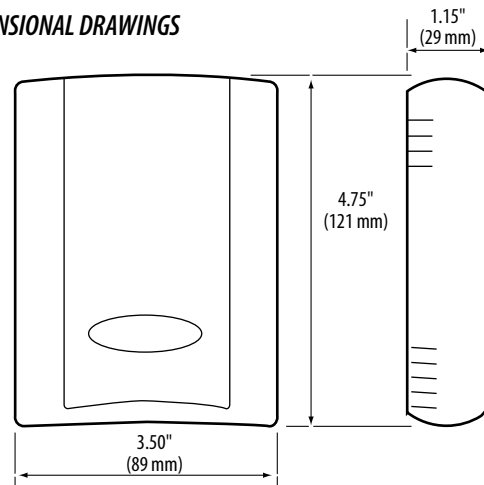
Voltage Output (3-Wire, 0-5V/0-10V)



CONFIGURATION



DIMENSIONAL DRAWINGS



SPECIFICATIONS

HS Element	Digitally profiled thin-film capacitive (32-bit mathematics) U.S. Patent 5,844,138
Accuracy	±1%, 2%, 3%, or 5% (specify) @ 10 to 90% RH; Multi-point calibration NIST traceable (±5% 2-point calibration)
Reset Rate*	24 hours
Stability	±1% @ 20°C (68°F) annually, for two years
Operating Humidity Range	0 to 100% RH
Temperature Coefficient	+0.1% RH/°C below 25°C; -0.1% RH/°C above 25°C
Analog Output	4-20mA mode; 2-wire, polarity insensitive, (clipped and capped) 0-5V/0-10V mode; 3-wire, observe polarity
Scaling	0 to 100% RH
Input Power	4-20mA mode; loop powered 12-30VDC, 30mA max. 0-5V/0-10V mode; 12-30VDC/24VAC, 15mA max.
Physical	High impact ABS plastic
Optional Temperature Output	
Transmitter option	Digital, 4-20mA/0-5V/0-10V output; accuracy ±0.5°C (±1°F) typical. Range specified on sensor
Resistance option	Customer specified thermistor or RTD
EMC Conformance – CE option	EN 50081-1, EN 50082-1, EN 61000-4-4, EN 61000-4-5, EN 61000-4-3, ENV 50204, EN 61000-4-6

*Reset Rate is the time required to recover to 50% RH after exposure to 90% RH for 24 hours.

One side of transformer secondary is connected to signal common, so an Isolation transformer or dedicated power supply may be required.

Shielded cabling is required for conformance to EMC standards. Technical information is available from factory upon request or is available on our website: www.veris.com