



HW Series

Wall Mount Humidity Sensors 2%, 3%, or 5% Accuracy — NIST certificates available for 2% Models

5 Year Warranty

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.

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

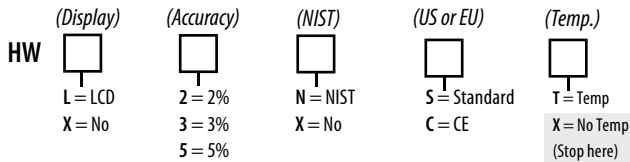
Reduce installation costs with combination sensors

- 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

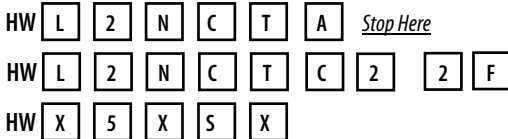
Calibration-free interchangeable NIST traceable HS element

- 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 2 -wire 4-20mA or 3-wire 0-5V/0-10V output

ORDERING INFORMATION

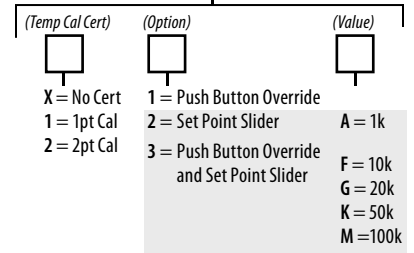


Examples:



- (Sensor Type)
- A = Transmitter: 50° - 95°F (10° - 35°C)
32° - 122°F (0° - 50°C)
(switchable)
- B = 100R Platinum, RTD
C = 1k Platinum, RTD
D = 10k T2, Thermistor
E = 2.2k, Thermistor
F = 3k, Thermistor
G = 10k CPC, 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
Q = 1uA/C, Linitemp
R = 10k US, Thermistor
S = 10k 3A 221
T = 100k, Thermistor

Options Available



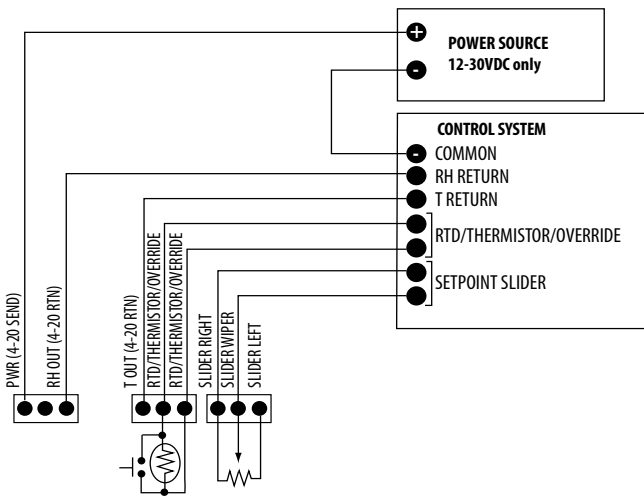
ACCESSORIES

Water guard and other accessories, see page 234

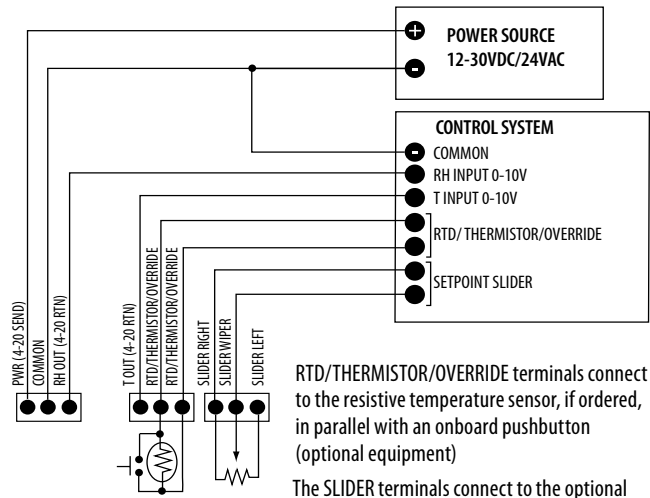


WIRING DIAGRAMS

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

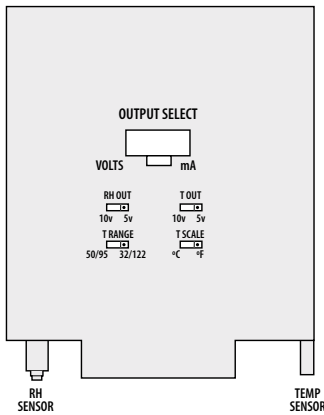


Voltage Output (3-Wire, 0-5V/0-10V)

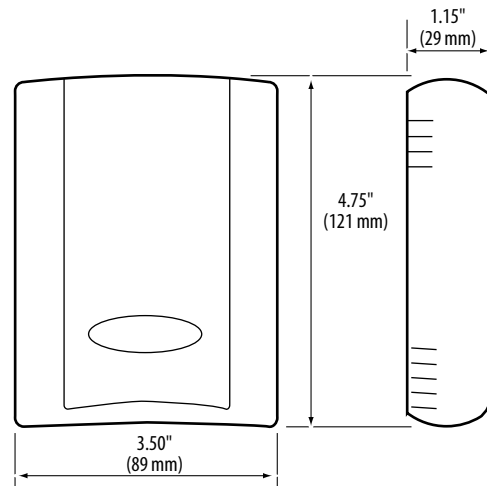


RTD/THERMISTOR/OVERRIDE terminals connect to the resistive temperature sensor, if ordered, in parallel with an onboard pushbutton (optional equipment)
The SLIDER terminals connect to the optional potentiometer. The LEFT and RIGHT terminals relate to the physical orientation of the control on the device (optional equipment)

CONFIGURATION



DIMENSIONAL DRAWINGS



SPECIFICATIONS

HS Element	Digitally profiled thin-film capacitive (32-bit mathematics) U.S. Patent 5,844,138
Accuracy**	2%, 3%, or 5% (specify) @ 10 to 80% RH; Multi-point calibration NIST traceable (±5% 2-point calibration)
Reset Rate*	24 hours
Stability	±1% @ 20°C (68°F) annually, for two years
Hysteresis	1.5% (typical)
Humidity Range	0 to 100% RH
Operating Temperature Range	10°C-35°C (50°F-95°F)
Temperature Coefficient	±0.1% RH/°C above or below 25°C (typical)
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	UL 94-V-0
<i>Optional Temperature Output:</i>	
Transmitter option	Digital, 4-20mA/0-5V/0-10V output; accuracy ±0.5°C (±0.9°F) typical
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.

**Specified accuracy with 24VDC supplied power with rising humidity.

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