HW SERIES

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Digital RH & RH/T Thermistor/RTD/Temp Transmitter (Non-Display Model)

Installer's Specifications

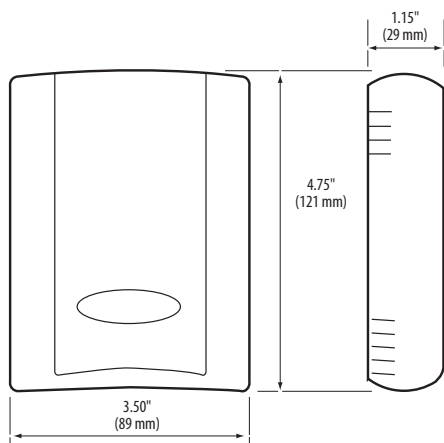|	
HS Element	Digitally profiled thin-film capacitive (32 bit mathematics)
	U.S. Patent 5,844,138
Accuracy at 25°C from 10-80% RH**	Multi-point calibration; NIST traceable
	±2%, 3%, or 5% models
	±1% at 12-60% RH in voltage output mode
	±1% at 20-40% RH in mA output mode
	±1% at 12-60% RH in mA output mode with temp transmitter
Reset Rate*	24 hours
Stability	±1%@20°C (68°F) annually, for two years
Hysteresis	1.5% (typical)
Linearity	Included in Accuracy spec.
Operating Humidity Range	0 to 100% RH
Operating Temperature Range	10°C to 35°C (50°F to 95°F)
Temperature Coefficient	±0.1% RH/°C above or below 25°C (typical)
Analog Output	4-20 mA mode: 2-wire, polarity insensitive
	0-5V/0−10 V mode: 3-wire, observe polarity
Scaling	0-100% RH
Input Power	4-20 mA mode: loop powered 12-30 VDC only, 30 mA max.
	0-5V/0-10 V mode: 12-30 VDC/24 VAC, 15 mA max.

Optional Temperature Output:

Transmitter Models	Digital, 4-20mA/0-5/0-10V output, accuracy ±0.5°C (±0.9°F) typical
RTD Models	Customer specified thermistor or RTD
Conformance	EMC EN 50081-1, EN 50082-1, EN 61000-4-4, EN 61000-4-5,
	EN 61000-4-3,ENV 50204, EN 61000-4-6

One side of transformer secondary is connected to signal common. Isolation transformer or dedicated power supply may be required. To conform to EMC standards, shielded cabling and technical information is available from the factory upon request or is available on our website: www.veris.com
* 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.
RTD/Thermistors in wall packages are not compensated for internal heating of product.

NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

QUICK INSTALL

1. Select a mounting location away from ventilation sources. The sensor should be mounted on a vertical wall, about 4 ½ feet above the floor.

2. Affix the backplate to the wall.

3. Wire the device. Refer to wiring diagrams on page 2.

4. Install Cover.

DIMENSIONS

1.15"
(29 mm)

4.75"
(121 mm)

3.50"
(89 mm)

PRODUCT IDENTIFICATION

	Display	Accuracy	NIST	US or EU	Temp.		Sensor Type		Temp. Cal. Cert.	Option	Value
HW	X	☐	☐	☐	☐		☐		☐	☐	☐

= No display	1 = 1%	N = NIST	S = Standard	T = Temp*	
	2 = 2%	X = No	C = CE	X = No Temp	
	3 = 3%			(Stop here)	
	5 = 5%				

Sensor Type:

A = Transmitter: 10°-35°C (50°-95°F) or 0°-50°C (32°-122°F) (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 with 11k 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
U = 20k, "D" Thermistor

Temp. Cal. Cert.:
X = No Cert.
1 = 1 pt cal.
2 = 2 pt cal.

Option:
1 = Pushbutton Override
2 = Setpoint Slider
3 = Pushbutton Override and Setpoint Slider

Value:
A = 1k
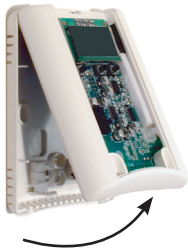F = 10k
G = 20k
K = 50k
M = 100k

* In order for unit to display both temperature and RH, a transmitter model must be ordered.
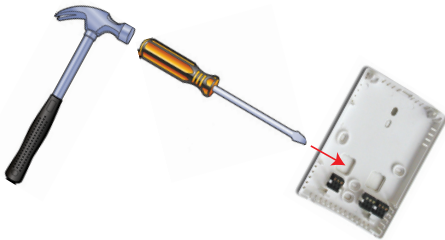
INSTALLATION

1. Remove the cover by pressing the tab at the top of the sensor while pulling outward from the top of the cover.

2. Remove the backplate by unfastening the sensor from the bottom of the backplate and pivoting the sensor outward.
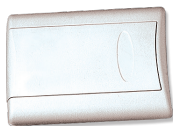
3. Punch out openings in the backplate.

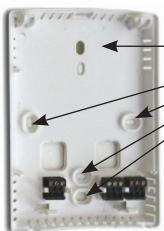4. Position the sensor vertically on the wall, 4 ½ feet above the floor.
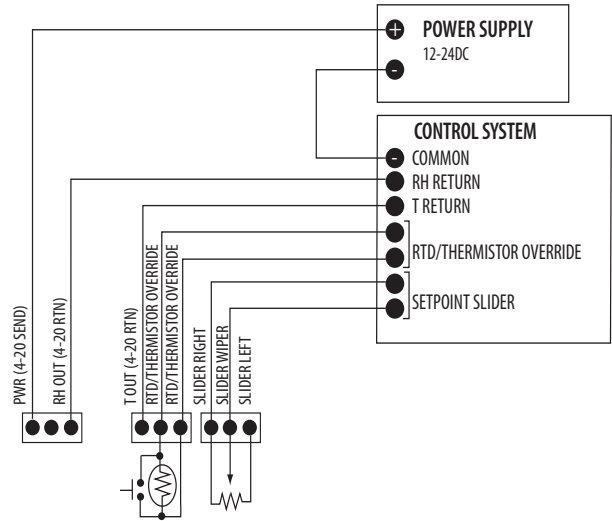
correct   *incorrect*

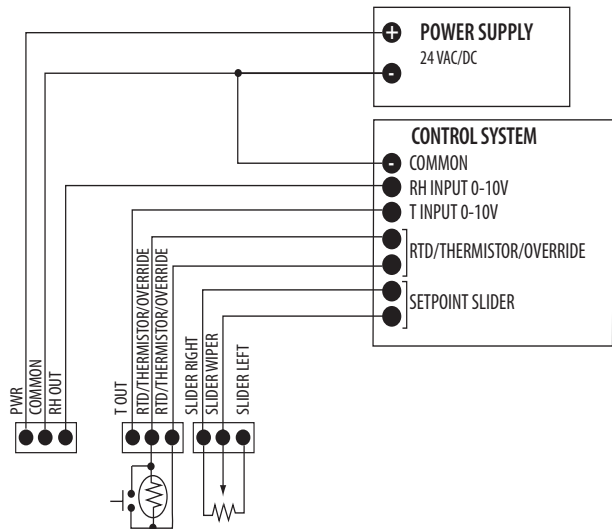5. Mount the backplate onto the wall using the screws provided.

Five screwholes available; use a minimum of two for secure mounting.
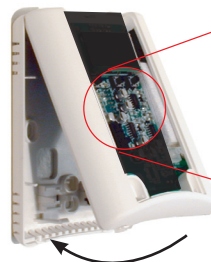
6. Wire the backplate.

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

POWER SUPPLY
12-24DC

CONTROL SYSTEM
COMMON
RH RETURN
T RETURN
RTD/THERMISTOR OVERRIDE
SETPOINT SLIDER

PWR (4-20 SEND)
RH OUT (4-20 RTN)
T OUT (4-20 RTN)
RTD/THERMISTOR OVERRIDE
RTD/THERMISTOR OVERRIDE
SLIDER RIGHT
SLIDER WIPER
SLIDER LEFT

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

POWER SUPPLY
24 VAC/DC

CONTROL SYSTEM
COMMON
RH INPUT 0-10V
T INPUT 0-10V
RTD/THERMISTOR/OVERRIDE
SETPOINT SLIDER

PWR
COMMON
RH OUT
T OUT
RTD/THERMISTOR/OVERRIDE
RTD/THERMISTOR/OVERRIDE
SLIDER RIGHT
SLIDER WIPER
SLIDER LEFT

7. Install and configure the sensor.

OUTPUT SELECT

VOLTS ☐ **mA**

RH OUT   **T OUT**
10V   5V   10V   5V

T RANGE   **T SCALE**
50/95 32/122   ºF ºC

WARNING: Output select must be correct before applying power.

8. Install the cover and snap into place.