

HN & HP Series



Pendant and Insertion

FEATURES

- Thin-film capacitive sensor element recovers from 100% saturation
- Electronics are encapsulated in stainless probe to resist corrosion
- Fully interchangeable element to 1%, 2%, 3%, or 5% accuracy...no calibration
- Pendant and insertion versions for application flexibility
- Polarity insensitive two-wire 4-20mA or 3-wire 0-5/0-10VDC versions...flexible systems compatibility
- Calibration-free interchangeable NIST traceable HS element
- Replace digital sensor quickly without calibration...maintain accuracy and reduce downtime
- HS element is microprocessor profiled with on-board nonvolatile memory
- Multi-point digital calibration to NIST standards
- NIST certification available
- Recovers from 100% saturation...no damage to sensor

DESCRIPTION

HN and HP Series probe type humidity transmitters are easy to install and exceptionally accurate. Their long-term stability and trouble-free serviceability make them among the best in the industry. The electronics are embedded inside the probe, protecting them from condensation-related failures. The thin-film capacitive HS sensor elements are factory calibrated using NIST traceable calibration equipment, eliminating the need for field calibration. Field replacement of the sensor element is a snap with the patented removable sensor, lowering costs and reducing downtime.

SPECIFICATIONS

INPUT POWER	
Voltage Model	Class 2; 12-30VDC/24VAC, 15mA max.
mA Model	Class 2; Loop powered 12-30VDC only, 30mA max.
OUTPUT	
Voltage Model	3-wire, observe polarity
mA Model	2-wire, not polarity sensitive (clipped & capped)
HUMIDITY	
HS Element†	Digitally profiled thin-film capacitive (32 bit mathematics) U.S. Patent 5,844,138
Accuracy @ 25°C**	±1%, 2%, 3%, or 5% (specify)@10 to 80% RH; Multi-point calibration, NIST traceable
Reset Rate***	24 hours
Stability	±1%@20°C (68°F) annually, for two years
Hysteresis	1.5% typical
Linearity	Included in accuracy spec.
Temperature Coefficient	±0.1% RH/°C above or below 25°C (typical)
Scaling	0-100% RH
TEMPERATURE OPTION	
Optional Temperature Transmitter Output	Digital, 4-20mA (clipped & capped) or 0-5V/0-10V output; accuracy ±0.5°C (±1°F) typical
OPERATING ENVIRONMENT	
Operating Humidity Range	0 to 100% RH noncondensing
Operating Temp Range	-40° to 50°C (-40° to 122°F)

† The HS sensing element has a 1-year warranty. The element is not a part of the 5-year product warranty.

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

** Specified accuracy with 24VDC supplied power with rising humidity. RTD/Thermistors are not compensated for internal heating of product.

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

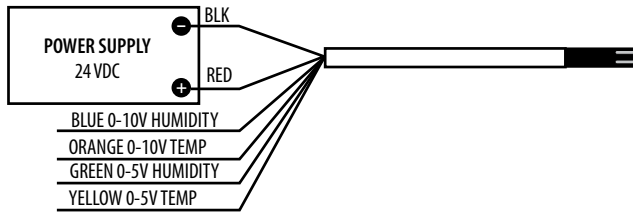
Shielded cabling is required for conformance to EMC standards. Technical information is available from factory upon request or is available on our website: www.veris.com.
EMC Conformance - CE Option: Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper surge protection (EN 61000-6-1:2007 specification requirements).

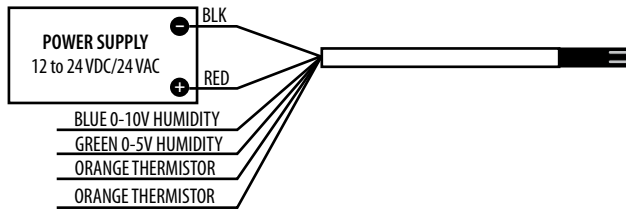
APPLICATIONS

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

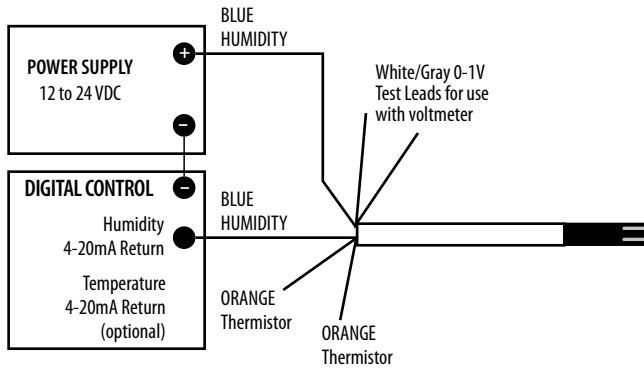
HN/HP 0-5V/0-10V Versions



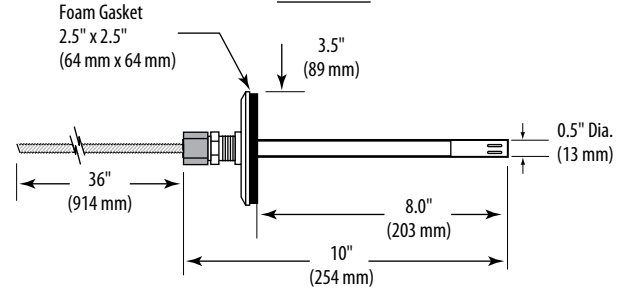
HN/HP with RTD/Thermistor 0-5V/0-10V Versions



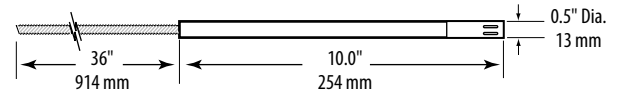
HN/HP with RTD/Thermistor 4-20mA Versions



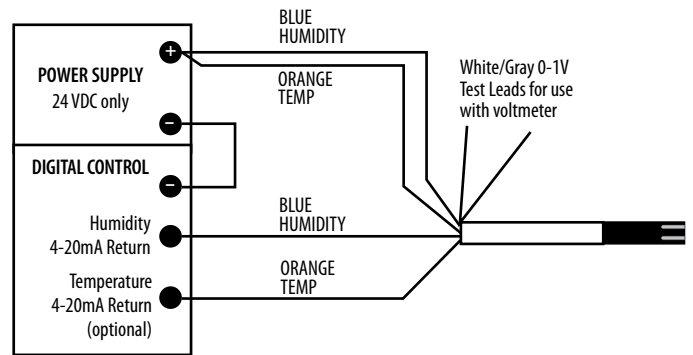
HN Series



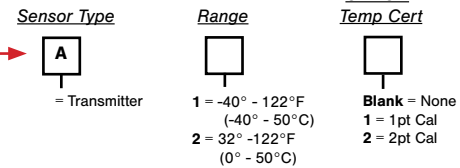
HP Series



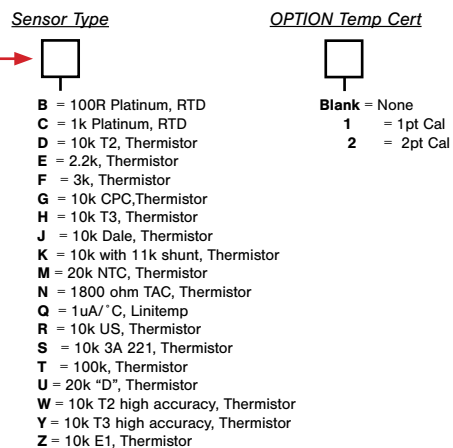
HN/HP 4-20mA Versions



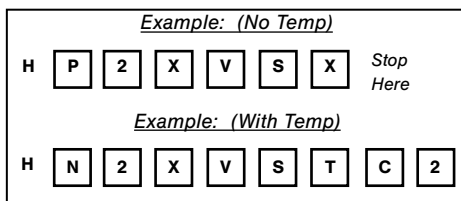
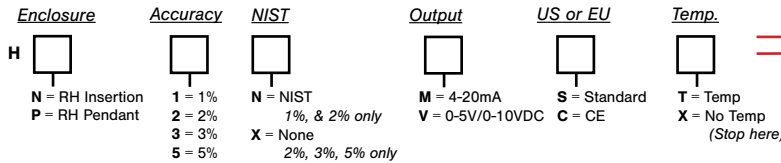
Humidity Transmitter Combination



Humidity RTD/Thermistor Combination



ORDERING INFORMATION



ACCESSORIES

Replacement humidity element (HS)

