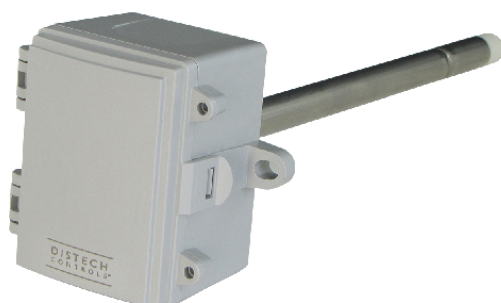




# HS-D\_2X Sensor Series

Duct Humidity Transmitters, Nema 4X



## Overview

The HS-D\_2X Series are duct humidity transmitters. They use a highly accurate and reliable Thermoset-Polymer-based capacitance humidity sensor, state-of-the-art digital linearization, and temperature compensated circuitry in order to monitor humidity levels. The sensing element is encapsulated in a 228.60 mm (9") long by 12.7 mm (0.5") diameter 304 S/S probe. A 60 micron HDPE filter protects against contaminants. Excellent long-term stability and quick response time combined with temperature compensation make the HS-D\_2X Transmitter Series the ideal choice for the HVAC market. Models with accuracy of 2%, 3%, or 5% are available.

## Applications

- HVAC
- Clean rooms
- Museums / Archives
- Hospitals and Pharmaceuticals

## Features & Benefits

- Economical
- Ease of installation
- Probes made of corrosion-resistant 304 stainless steel
- Optional temperature sensor

## Accessories

HS-NIST	NIST Calibration Certificate
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Note: Calibration certificates must be purchased at the time of product purchase

## Model Selection

HS-D22XXX	2% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure
HS-D22XTX	2% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure, 10k $\Omega$ , type 2, NTC thermistor
HS-D32XXX	3% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure
HS-D32XTX	3% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure, 10k $\Omega$ , type 2, NTC thermistor
HS-D52XXX	5% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure
HS-D52XTX	5% accuracy duct relative humidity transmitter, 24 Vac/dc and jumper selectable outputs, Nema4X enclosure, 10k $\Omega$ , type 2, NTC thermistor

Note: For other temperature sensor types please contact Distech Controls Internal Sales. Different pricing may apply.

# Product Specifications

## Environmental

Operating Temperature \_\_\_\_\_ -40 °C to 85 °C (-40 °F to 185 °F)  
Storage Temperature \_\_\_\_\_ -40 °C to 85 °C (-40 °F to 185 °F)  
Ambient Humidity \_\_\_\_\_ 0 to 95% Non-condensing

## Humidity Sensor/Probe

Sensor Type \_\_\_\_\_ Thermoset polymer based capacitive  
Sensor Accuracy \_\_\_\_\_ ±2, 3, or 5% RH (5 to 95% RH)  
Output Signal \_\_\_\_\_ 4-20mA current loop, 0-5 VDC, or 0-10 VDC  
Range \_\_\_\_\_ 0 to 100%RH  
Response \_\_\_\_\_ 15 seconds typical  
Temperature Dependence \_\_\_\_\_ ±0.05% RH/ °C  
Hysteresis \_\_\_\_\_ ±1.5% RH maximum  
Repeatability \_\_\_\_\_ ±0.5% RH typical  
Linearity \_\_\_\_\_ ±0.5% RH typical  
Probe \_\_\_\_\_ 230 mm (9") probe length x 12.7 mm(1/2")  
Diameter Stainless Steel with Porous Filter

## Enclosure

Material \_\_\_\_\_ Grey ABS; Type UL94-V0; IP65 (NEMA 4X)  
Shipping Weight \_\_\_\_\_ 0.70 lbs (0.32 kg)  
Electrical Conduit Connection \_\_\_\_\_ 1/2" NPT knockout for conduit connections  
and M16 adapter and cable gland in Europe

## Electrical

Dissipation Factor \_\_\_\_\_ 2.2mW/K (Thermistor)  
Max Power @ 25°C (77°F) \_\_\_\_\_ 75mW (Thermistor)  
Thermal Time Constant \_\_\_\_\_ Less than 10s (Thermistor)  
Power Supply \_\_\_\_\_ 18 to 30 Vdc, 15 to 26 Vac  
Consumption \_\_\_\_\_ 22 mA Maximum  
Output Drive at 24 Vdc \_\_\_\_\_ 550 Ω Max for Current Output  
10 kΩ Min for Voltage Output  
Internal Adjustments \_\_\_\_\_ Clearly marked ZERO and SPAN pots  
Protection Circuitry \_\_\_\_\_ Reverse voltage protected and output limited  
Termination \_\_\_\_\_ Screw terminal block (14 20 22 AWG / 2.08 mm<sup>2</sup> to 0.326 mm<sup>2</sup>)

## Temperature Sensor Option

Type<sup>1</sup> \_\_\_\_\_ 10k Ω NTC thermistor, Type 2  
Accuracy \_\_\_\_\_ ±0.2°C; ±0.36°F

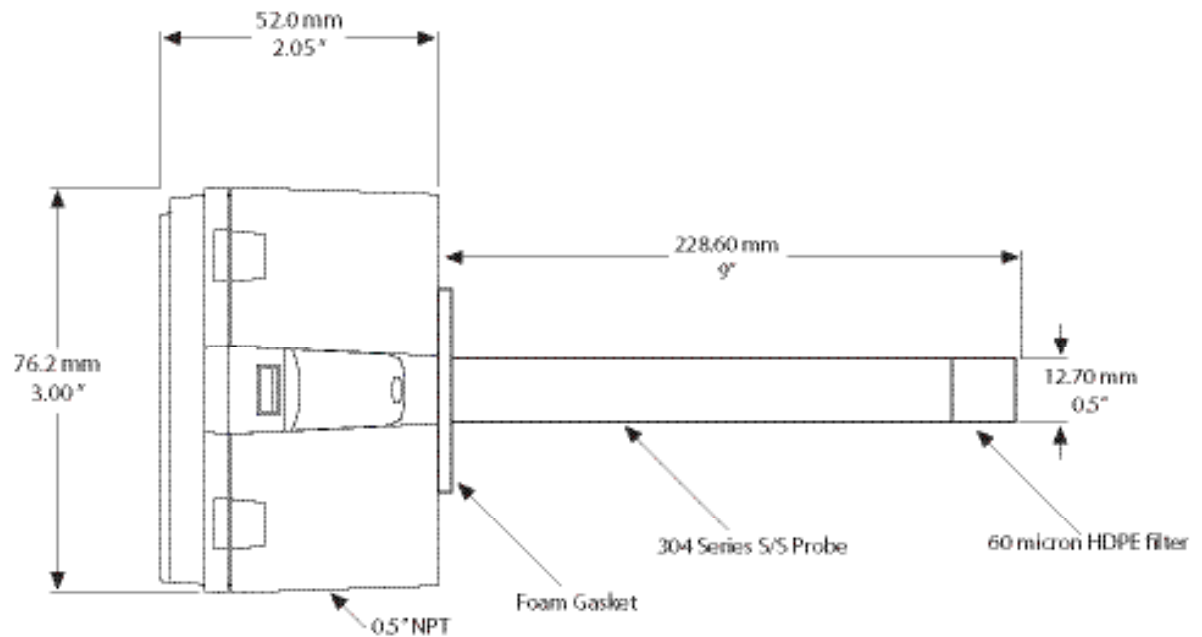
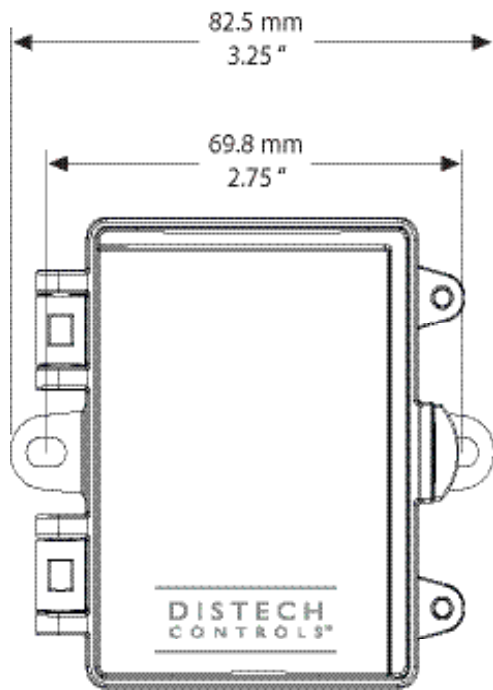
## Agency Approval

Material<sup>2</sup> \_\_\_\_\_ UL94-V0  
Country of origin \_\_\_\_\_ Canada

1. Temperature sensor type stated is standard. Other temperature sensor types are available.
2. All materials and manufacturing processes comply with the RoHS directive



## Dimensions



Specifications subject to change without notice.  
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