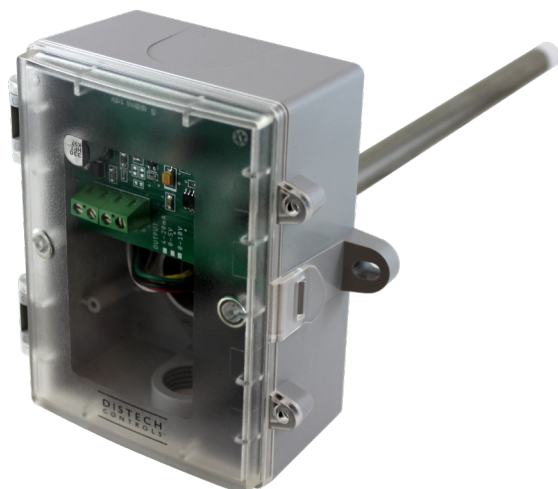




HS-DT_2X Transmitter Series

Duct Humidity and Temperature Transmitters, Nema 4X



Overview

The HS-DT_2X Transmitter Series are duct humidity and temperature transmitters. They use a highly accurate and reliable Thermoset-Polymer-based capacitance humidity sensor and a Platinum RTD temperature sensor along with state-of-the-art digital linearization and temperature compensated circuitry in order to monitor humidity levels. The sensor is encapsulated in a 228.60 mm (9") long by 12.7 mm (0.5") diameter 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-DT_2X Series the ideal choice for the HVAC market. Models with RH 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 stainless steel
- Proven long stability and performance
- Field-selectable analog signals

Accessories

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

Model Selection

	HS-	DT	2	C04	2X	R1
Transmitter Mounting Style	DT = Duct Humidity and Temperature Transmitters					
Humidity Sensing Accuracy	2 = 2%					
	3 = 3%					
	5 = 5%					
Control Signal Output	C04 = Current, 4-20mA					
	V05 = Voltage, 0-5VDC					
	V10 = Voltage, 0-10VDC					
Enclosure	2X = Nema 4X plastic enclosure					
Temperature Range	R1 = 0° - 35°C (32° - 95°F)					
	R2 = 0° - 50°C (32° - 122°F)					
	R3 = 0° - 100°C (32° - 212°F)					
	R4 = -50° - 50°C (-58° - 122°F)					

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 _____ $\pm 2, 3, \text{ or } 5\%$ RH (5% to 95% RH)
Output Signal _____ 4-20mA , 0-5 VDC, or 0-10 VDC
Range _____ 0 to 100% RH
Response Time _____ 15 seconds typical
Temperature Dependence _____ $\pm 0.05\%$ RH/ °C
Hysteresis _____ $\pm 1.5\%$ RH maximum
Repeatability _____ $\pm 0.5\%$ RH typical
Linearity _____ $\pm 0.5\%$ RH typical
Stability _____ $\pm 1\%$ RH typical at 50% RH in 5 years.
Probe _____ 230 mm (9") length x 127 mm (1/2") diameter,
304 series stainless steel with porous filter.

Enclosure

Material _____ Grey polycarbonate with gasket, UL94-V0, IP65 (NEMA 4X)
Shipping Weight _____ 220g (7.8 oz) including probe
Electrical Conduit Connection _____ 1/2" NPT knockout for conduit connections
and M16 adapter and cable gland in Europe

Electrical

Power Supply _____ 18 to 35 Vdc, 15 to 26 Vac
Consumption _____ 22 mA Maximum
Output Drive at 24 Vdc _____ 550 Ω Max for Current Output
10 k Ω Min for Voltage Output
Protection Circuitry _____ Reverse voltage protected and output limited
Internal Adjustments _____ Clearly marked ZERO and SPAN pots
Input Voltage Effect _____ Negligible over specified operating range
Termination _____ Screw terminal block (14 20 22 AWG / 2.08 mm² to 0.326 mm²)

Temperature Sensor

Type _____ 1000 Ω Platinum. IEC751,
385 Alpha, thin film, $\pm 0.3^\circ\text{C}$ @ 0°C
Accuracy _____ $\pm 0.1\%$ of span

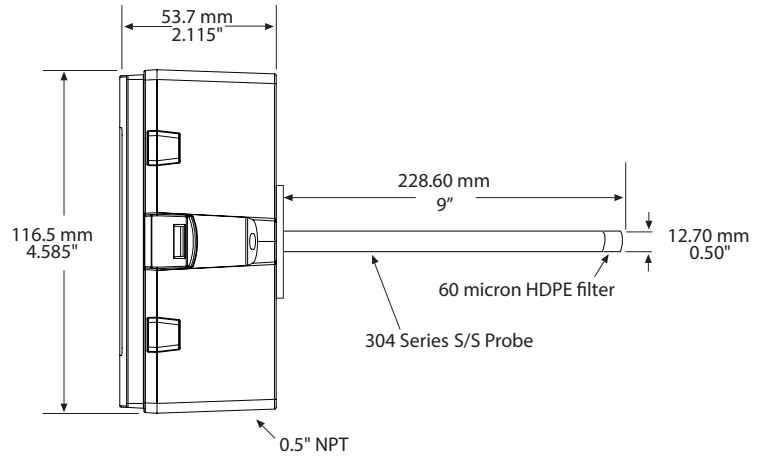
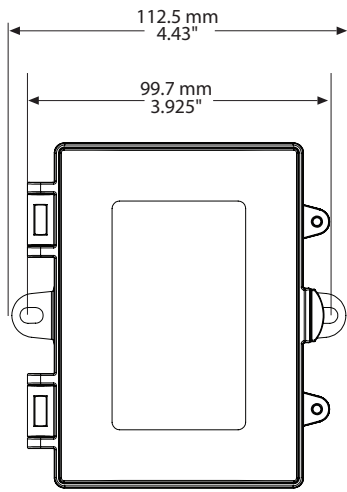
Agency Approval

Material¹ _____ UL94-V0
Country of Origin _____ Canada



1. All materials and manufacturing processes comply with the RoHS directive

Dimensions



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