Dwyer

SERIES HHT

HAZARDOUS AREA HUMIDITY/TEMPERATURE TRANSMITTER
Intrinsically Safe or Explosion-Proof Models

CE FM APPROVED

4-9/32 [108.74]
13-23/32 [347.98]
4-15/32 [113.51]
2-23/32 [69.06]
1/2 NPT
1/2 NPT
3-29/32 [99.22]
1/2 NPT
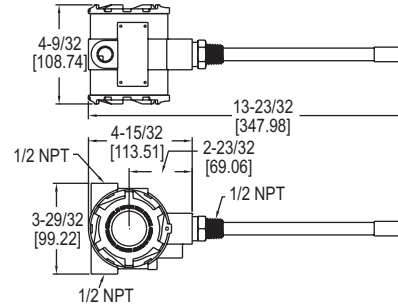
The **SERIES HHT** Hazardous Area Humidity/Temperature Transmitter takes accurate measurements in the harshest of environments. The explosion-proof model is offered with 4 to 20 mA output for humidity only. The intrinsically safe version is offered with 4 to 20 mA output for humidity and temperature, and do require an intrinsically safe barrier to meet hazardous area approvals.
It is important to develop a routine schedule for replacing the RH/temperature sensor (part number A-451). The sensor should be replaced annually or sooner depending on application conditions.

FEATURES/BENEFITS
• FM approved explosion-proof and intrinsically safe models
• Integral LCD option
• Replaceable calibrated sensor for long term use in harsh environments
• Dual temperature and relative humidity output models

APPLICATIONS
• Process monitoring
• Offshore HVAC monitoring
• Dust and grain handling

SPECIFICATIONS

Relative Humidity Range: 0 to 100% RH.
Temperature Range: -40 to 140°F (-40 to 60°C).
Accuracy: ±2% 10 to 90% RH, ±0.9°F at 72°F (±0.3°C at 25°C).
Hysteresis: ±1%.
Repeatability: ±0.1% typical.
Temperature Limits: -40 to 140°F (-40 to 60°C).
Storage Temperature: -40 to 176°F (-40 to 80°C).
Compensated Temperature: -40 to 140°F (-40 to 60°C).
Power Requirements: For intrinsically safe models HHT-IX, 9.5 to 28 VDC. For explosion-proof models HHT-EX, 16.5 to 28 VDC.
Output Signal: 4 to 20 mA, 2 channels for humidity/temperature models (loop power on RH).
Response Time: 15 s.

Electrical Connections: Screw terminal block.
Conduit Connection: 1/2 female NPT.
Drift: < 1% RH/year.
RH Sensor: Capacitance polymer.
Temperature Sensor: Solid state band gap.
Housing Material: Aluminum.
Display: Optional 2 line alpha numeric, 8 characters/line. Temperature display is °F/°C selectable.
Display Resolution: RH: 0.1%; Temperature: 0.1°F (0.1°C).
Weight: 2 lb 8 oz (1134 g).
Enclosure Rating: NEMA 4X (IP66). Models HHT-EX: FM Explosion- Proof, Class I Div. 1 Group B, C, D, Class II Div. 1 Group E, F, G, Class III Div. 1; Models HHT-IX: FM Intrinsically Safe, Class I Div. 1 Group A, B, C, D, Class II Div. 1 Group E, F, G, Class III Div. 1 T4.
Agency Approvals: CE, FM.

ACCESSORIES

Model	Description
KFD0-SCS-EX1.55❶	Loop powered galvanic isolator
A-287	Mounting bracket for pipe or surface mounting (Includes bracket and two 2″ U-bolts)
A-450	Replacement sintered filter
A-451	Replacement 2% sensor

MODEL CHART

Model	Protection	Description	Display
HHT-EU	Explosion-proof	Humidity	No
HHT-IU	Intrinsically safe	Humidity	No
HHT-IT	Intrinsically safe	Humidity/temperature	No
HHT-EU-LCD	Explosion-proof	Humidity	Yes
HHT-IT-LCD	Intrinsically safe	Humidity/temperature	Yes