



# HAZARDOUS LOCATIONS

## EXPLOSION PROOF / INTRINSICALLY SAFE HUMIDITY & TEMPERATURE TRANSMITTER HHT SERIES

### DESCRIPTION

The Dwyer HHT Series explosion proof / intrinsically safe humidity transmitter is designed for rugged industrial use. Approved by FM for hazardous location, this system provides safe, reliable, and accurate humidity and/or temperature measurement with 4-20 mA outputs. Two models have a digital display.

### FEATURES

- Available with digital display
- Intrinsically safe with KFD0-SCS-Ex1.55 barrier



HHT

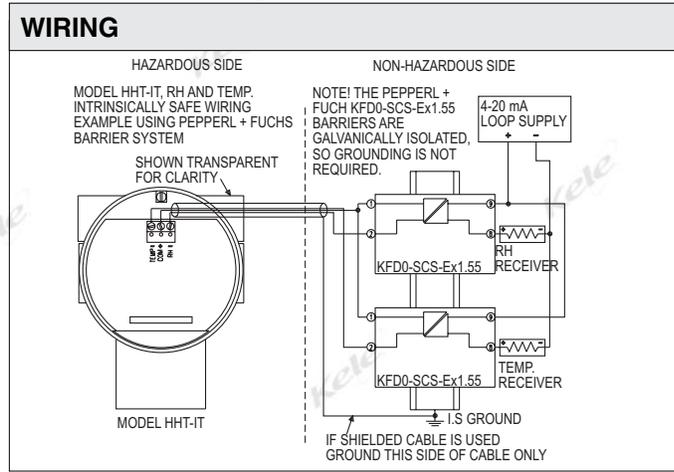


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HAZARDOUS LOCATIONS

**CAUTION:** Intrinsically safe devices require the use of an intrinsic safety barrier when applied in hazardous locations. Provide wiring and grounding in accordance with manufacturer's instructions. When the Model HHT is combined with the KFD0-SCS-Ex1.55 intrinsic safety barrier, total cable capacitance must be limited to 0.22  $\mu$ F, and inductance must be limited to 4.0 mH (equivalent to 2700'/823m maximum Belden® #8760 18/2 shielded cable 0.18  $\mu$ H/FT, 44 pF/FT).

**CAUTION:** Conduit seals **MUST** be installed within code-required distance from the enclosure to maintain explosion proof rating. For Group B and C atmospheres, conduit seals must be within 2" (5 cm) of the enclosure regardless of less stringent code requirements. **NOTE:** When using the temperature option, both humidity and temperature loops must be connected to operate.



### SPECIFICATIONS

<b>Supply Voltage</b>	16.5 to 28 VDC	<b>Sensor Type</b>	Capacitive
<b>Explosion proof</b>	9.5 to 28 VDC	<b>RH</b>	Solid state
<b>Intrinsically Safe</b>	$\pm 2\%$ RH from 10 to 90% RH	<b>Temperature</b>	1/2" FNPT
<b>Accuracy</b>	4-20mA, 375 $\Omega$ @ 24VDC (-Eu)	<b>Conduit Connection</b>	Duct probe: 1/2" MNPT
<b>Signal Output (1 or 2)</b>	V <sub>max</sub> =28V, I <sub>max</sub> = 100mA, C <sub>i</sub> = 62nF, L <sub>i</sub> = 7.7 $\mu$ H, P <sub>i</sub> = 651mW	<b>Mounting</b>	LCD Display
<b>Entity Parameters</b>		<b>Enclosure Rating</b>	NEMA 4X, Aluminum
<b>Area</b>		<b>RH Sensor Range</b>	0% to 100% RH
<b>Explosion proof</b>	Class I, Div. 1, Groups B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1, Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1	<b>Temperature Sensor Range</b>	-40° to 140°F (-40° to 60°C)
<b>Intrinsically Safe</b>		<b>Wiring</b>	Terminals
<b>Response Time</b>	15 seconds	<b>Weight</b>	2.5 lb (1.1 Kg)
		<b>Approvals</b>	FM, CE
		<b>Warranty</b>	1 year

### ORDERING INFORMATION

MODEL	DESCRIPTION
HHT-IU	10 inch Intrinsically safe Humidity transmitter
HHT-IT	10 inch Intrinsically safe Humidity and Temperature transmitter
HHT-IT-LCD	10 inch Intrinsically safe Humidity and Temperature transmitter with display
HHT-EU	10 inch Explosion proof Humidity transmitter
HHT-EU-LCD	10 inch Explosion proof Humidity transmitter with display

### RELATED PRODUCTS

GFF-50	1/2" galvanized mounting flange
KFD0-SCS-Ex1.55	Intrinsic safety barrier, 4-20 mA two-wire transmitters
EYM-50	1/2" size, 1.06" turning radius, 1 oz Kwiko cement required, Malleable Iron construction
DCPA-1.2	Power supply, 120 VAC In to 24 VAC/24 VDC Out
A-287	Separate pipe/wall mounting hardware kit for TTE & HHT Series
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT