



VECTOR

CE



TDC-BH-U

DESCRIPTION

The **Vector Model TDC-BH-U Duct Mount Humidistat** is a stand-alone programmable electronic humidistat designed for controlling humidification and dehumidification equipment in HVAC/BAS applications. The **TDC-BH-U Series** features one internal humidity sensor, one external temperature sensor input and two relay outputs. Humidity reset is possible using the **ST-O24** outdoor air temperature sensor for cold weather applications to prevent condensation. The **TDC-BH-U-D Series** comes with all of the features of the base model plus a time clock feature for advanced programming with 48 hour backup.

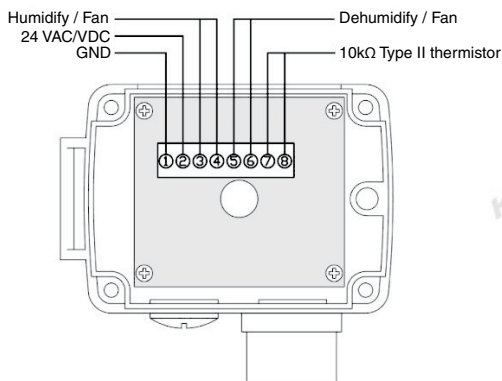
FEATURES

- **Humidification and Dehumidification control**
- **External temperature input for set point setback**
- **Programmable user interface**
- **Optional time clock**
- **2 relay outputs**
- **Easy to read display**
- **Replaceable sensor**

SPECIFICATIONS

Accuracy	±5% RH (10-90%)	Operating Humidity	0% to 95% non-condensing
Supply Voltage	24 VAC ±10%, 50/60 Hz @ 1.5 VA; 24 VDC ±10%, @ 63 mA	Enclosure Rating	NEMA 1, Polycarbonate PC (UL class V-0)
Analog Input	10K Type II (Type 24) thermistor	Wiring Terminations	Terminal block (12 to 24 AWG)
Relay Output	2 NO SPST Relays, 1.2 Amps @ 250 VAC	Weight	0.48 lb (0.22 Kg)
Operating Temperature	32° to 122°F (0° to 50°C)	Approvals	CE
		Warranty	2 years

CONNECTION TERMINALS



Terminal-description:

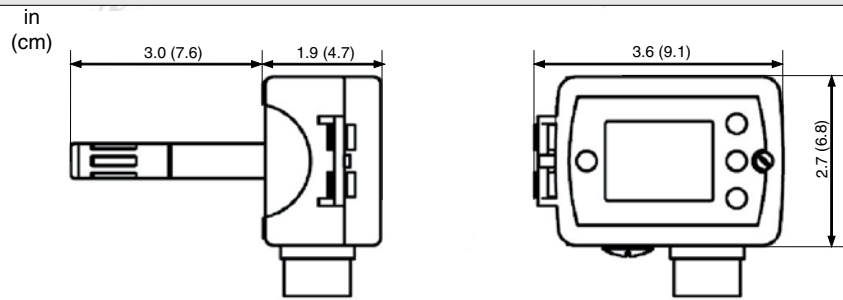
1. Connection for power-supply (24 VAC/VDC, ±10%). In case of DC, connect the negative power-terminal. Common connection for analog inputs and outputs.
2. Connection for power-supply (24 VAC/VDC, ±10%). In case of DC, connect the positive power-terminal.
3. Contact "DO 1" Humidify or Fan, 2A maximum
4. Contact "DO 1" Humidify or Fan, 2A maximum
5. Contact "DO 2" Dehumidify or Fan, 2A maximum
6. Contact "DO 2" Dehumidify or Fan, 2A maximum
7. Thermistor input "RT" (10kΩ Type II thermistor)
8. Thermistor input "RT" (10kΩ Type II thermistor)



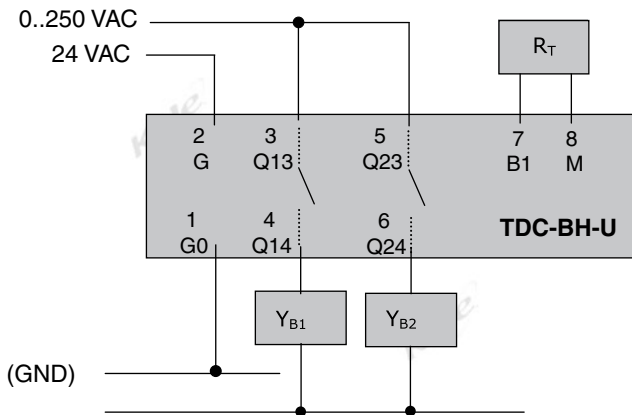
HUMIDITY

5% DUCT MOUNT HUMIDSTAT TDC SERIES

DIMENSIONS



WIRING



Humidify / Dehumidify, TDC-BH-U (-D)
 Y_{B1} Binary output 1: Humidify 0 to 24 VAC or 0 to 30 VDC
 Y_{B2} Binary output 2: Dehumidify 0 to 24 VAC or 0 to 30 VDC
 R_T Temperature input for setback: 10kΩ Type II thermistor

Humidify plus fan control, TDC-BH-U (-D) – W04
 Y_{B1} Binary output 1: Humidify 0 to 24 VAC or 0 to 30 VDC
 Y_{B2} Binary output 2: Fan 0 to 24 VAC or 0 to 30 VDC
 R_T Temperature input for setback: 10kΩ Type II thermistor

Dehumidify plus fan control, TDC-BH-U (-D) – W05
 Y_{B1} Binary output 1: Fan 0 to 24 VAC or 0 to 30 VDC
 Y_{B2} Binary output 2: Dehumidify 0 to 24 VAC or 0 to 30 VDC
 R_T Temperature input for setback: 10kΩ Type II thermistor

ORDERING INFORMATION

MODEL	DESCRIPTION
TDC-BH-U-W20	5% duct mount humidistat for humidification and dehumidification with display
TDC-BH-U-W24	5% duct mount humidifying humidistat with display and fan control option
TDC-BH-U-W25	5% duct mount dehumidifying humidistat with display and fan control option
TDC-BH-U-D-W20	5% duct mount humidistat for humidification and dehumidification with display with programmable time clock
TDC-BH-U-D-W24	5% duct mount humidifying humidistat with display, fan control option and programmable time clock
TDC-BH-U-D-W25	5% duct mount dehumidifying humidistat with display, fan control option and programmable time clock

RELATED PRODUCTS

AES-HT-A5	5% Replacement humidity element
AMC-1	Cable gland for SDC-H1
AMC-2	Conduit fitting, 1/2 in NPT for SDC-H
ST-R24	Raw temperature sensor with six foot cable, 10kΩ Type II thermistor
ST-D24	Eight inch duct sensor with six foot cable, 10kΩ Type II thermistor
SD-TN10-20-2	Eight inch duct sensor with six foot cable, 10kΩ Type II thermistor
SDB-TN10-12-W	Five inch duct sensor with housing and six foot cable, 10kΩ Type II thermistor
SDB-TN10-20-W	Eight inch duct sensor with housing and six foot cable, 10kΩ Type II thermistor
ST-O24	Outdoor temperature sensor
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
691-K0A	Control transformer, 120:24 VAC, 40 VA, Class 2
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT