



HUMIDITY

± 5% DUCT MOUNT HUMIDISTAT MODEL TDC-BH

DESCRIPTION

The **Model TDC-BH-U** is a duct mount stand-alone programmable electronic humidistat designed for controlling humidification and dehumidification equipment in HVAC and energy management systems. The **TDC-BH-U** features one internal humidity sensor, one external temperature sensor input and two relay outputs. Humidity reset is possible using the SOD-Tn10 outdoor air temperature sensor for cold weather applications to prevent condensation. The **Model TDC-BH-U-D** 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*

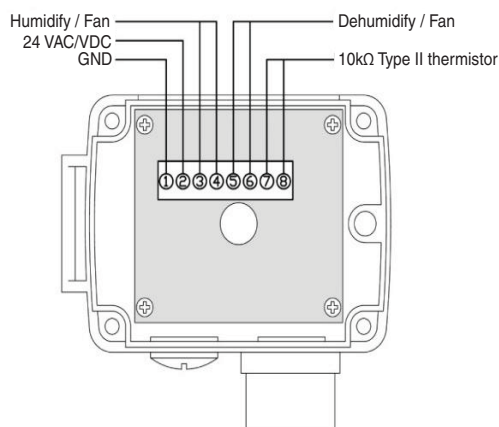


TDC-BH-U

SPECIFICATIONS

Supply voltage	24 VAC ±10%, 50-60 Hz, 24 VDC	Electrical connections	Terminal block (12 to 24 AWG)
Accuracy	±5% RH (10-90%)	Enclosure material	Polycarbonate PC (UL class V-0)
Operating range	Less than 95% (non-condensing)	Approvals	CE
Ambient temperature	32° to 122°F (0° to 50°C)	Weight	0.58 lb (0.26 kg)
Output	2 NO SPST Relays, 2 Amps @ 24 VAC	Warranty	2 years

CONNECTION TERMINALS

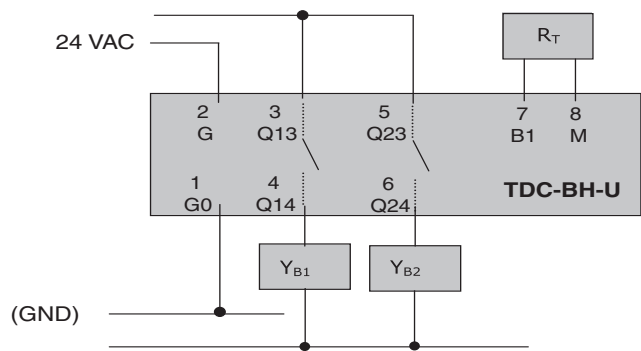
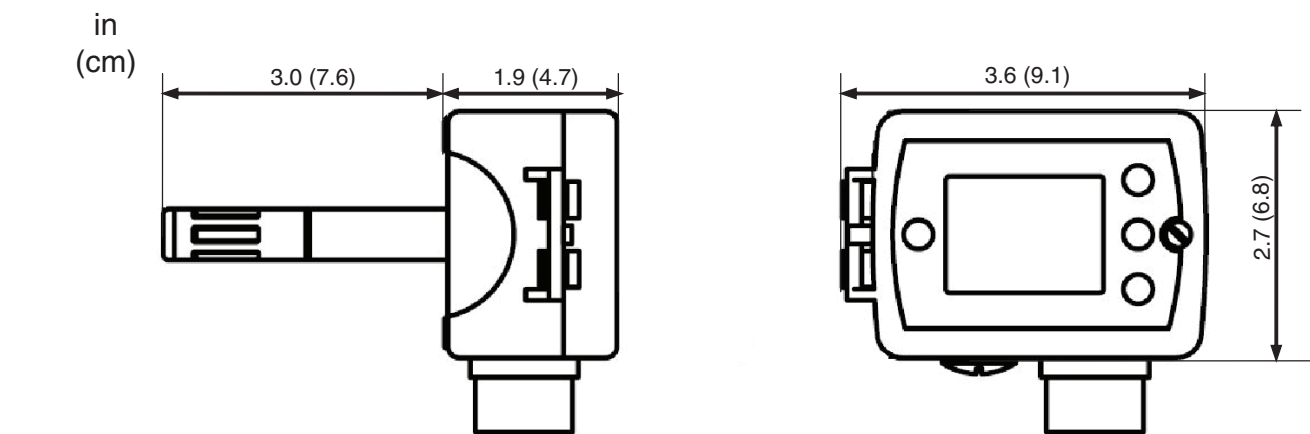


Terminal-description:

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)



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

S-TN10-2	Raw temperature sensor with six foot cable, 10kΩ Type II thermistor
SD-TN10-12-2	Five 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	Five inch duct sensor with housing and six foot cable, 10kΩ Type II thermistor
SDB-TN10-20	Eight inch duct sensor with housing and six foot cable, 10kΩ Type II thermistor
SOA-TN10	Outdoor temperature sensor
AES-HT-A5	Replacement humidity element