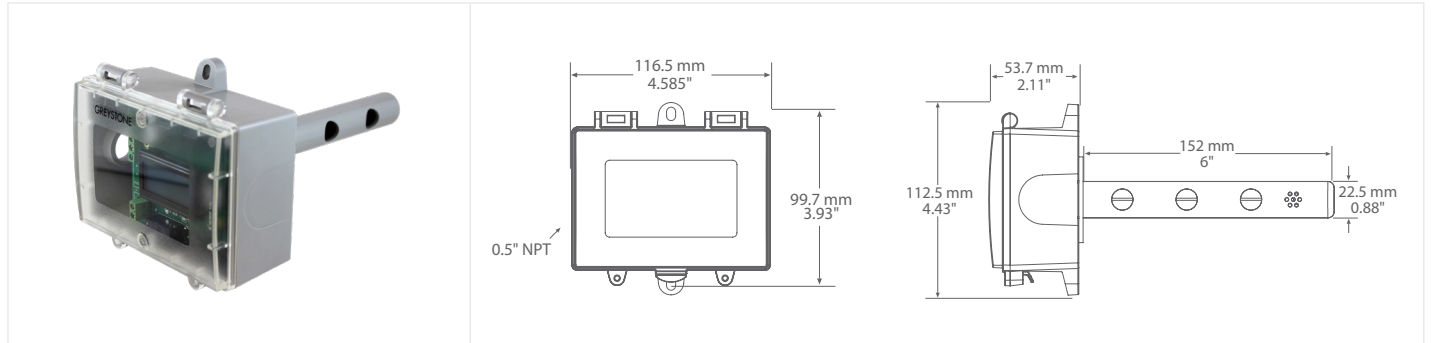


DUCT CARBON DIOXIDE/HUMIDITY/TEMPERATURE TRANSMITTER



CHTDT SERIES

PRODUCT DESCRIPTION

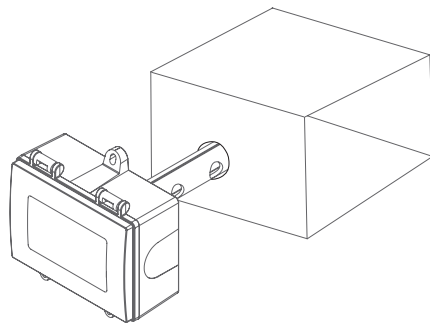
The CHTDT transmitter incorporates three sensors in one duct mount enclosure for the most efficient environmental monitoring and control system. It uses Infrared Technology to monitor CO₂ levels within a range of 0 – 10000 ppm, a field-proven RH sensor to monitor relative humidity from 0-100 %RH and a curve-matched thermistor to measure temperature over common field-selectable ranges. A hinged and gasketed Polycarbonate enclosure is included for ease of installation.

TYPICAL INSTALLATION

For complete installation and wiring details, please refer to the product installation instructions.

The CHTDT sensor installs on the outside of a return air duct with the sampling tube inserted into the duct. Mount the sensor in an easily accessible location in a straight section of duct at least five feet from corners and other items that may cause disturbances in the air flow. Avoid areas with vibrations or rapid temperature changes.

The enclosure provides mounting tabs for ease of installation.



SPECIFICATIONS

CARBON DIOXIDE	Sensor Type: Dual channel non-dispersive infrared (NDIR) Measurement Range: 0-10000ppm, adjustable, Default is 0-2000ppm Accuracy: ± (30ppm + 3% of measured value) Temperature Dependency: ±2.5ppm/°C Sensor Life Span: >15 years Response Time: 20 seconds (T63) Warm-up Time: 1 minute
RELATIVE HUMIDITY	Measurement Range: 0-100 %RH, non-condensing Accuracy: ±2 %RH (5 to 95 %RH) Resolution: ±0.01 %RH Hysteresis: ±0.8 %RH @ 25°C (77°F) Response Time: 8 seconds typical Stability: <0.25 %RH/year
TEMPERATURE	Range: 0 to 35°C (32 to 95°F) or 0 to 50°C (32 to 122°F) selectable via keypad Accuracy: ±0.2°C Resolution: 0.1°C
OPTIONAL PASS-THRU TEMPERATURE	Type: Thermistor or RTD Accuracy: Thermistors: ±0.2°C (±0.36°F) @ 25°C (77°F) Platinum RTD's: ±0.3°C (±0.54°F) @ 0°C (32°F) Nickel RTD's: ±0.4°C (±0.72°F) @ 0°C (32°F) Output: 2-wire resistive
POWER SUPPLY	20 - 28 Vac/dc (non-isolated half-wave rectified)
CONSUMPTIONS	Current: 120 mA max @ 24 Vdc, 212 mA max @ 24 Vac Voltage: 79 mA max @ 24 Vdc, 129 mA max @ 24 Vac
OUTPUT SIGNALS	4-20 mA active (sourcing), 0-5 Vdc / 0-10 Vdc, BACnet® or Modbus
OUTPUT DRIVE CAPABILITY	Current: 550Ω maximum Voltage: 5 KΩ minimum
NETWORK INTERFACE	Hardware: 2-wire RS-485 Software: Native ModBus MS/TP RTU protocol, Native BACnet MS/TP protocol Baud Rate: 9600, 19200, 38400, 57600, 76800 or 115200 MAC Address Range: BACnet: 0-127, Modbus: 1-255
OPTIONAL RELAY	Contact Ratings: Form A contact (N.O.), 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc Relay Trip Point: Programmable via keypad Relay Hysteresis: Programmable via keypad
STORAGE TEMPERATURE	-20 to 60°C (-4 to 140°F)
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0-95 %RH non-condensing
ENCLOSURE	Polycarbonate, UL94-V0, IP65 (NEMA 4X)
DIMENSIONS	Enclosure: 116.5mm x 99.7mm x 53.7mm (4.6" x 3.9" x 2.1") Probe: 152mm L x 22.5mm D (6" x 0.85")
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
APPROVALS	CE
COUNTRY OF ORIGIN	Canada

NOTE: This CO₂ sensor incorporates a Self Calibration feature to correct CO₂ sensor drift. This feature is recommended for applications where the CO₂ level will be close to normal (400 ppm) at least one hour per day. If the monitored space is occupied 24 hours or consistently maintains higher or lower levels of CO₂, it is recommended that this feature be turned off, but yearly calibration will be required.

