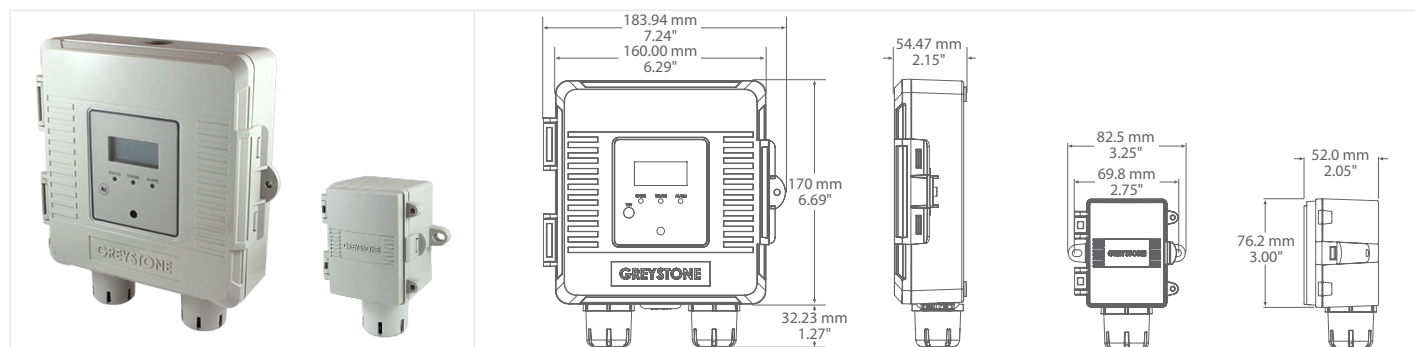




CARBON MONOXIDE/NITROGEN DIOXIDE DETECTOR



GDT SERIES

PRODUCT DESCRIPTION

The GDT Series of gas monitoring sensors monitor levels of carbon monoxide (CO) and/or nitrogen dioxide (NO₂) to provide an early warning of elevated concentrations.

The GDT is available as a standalone CO or NO₂, as well as a CO/NO₂ dual sensor device. The dual sensor device is available in 2 configurations: CO/NO₂ housed one enclosure or as CO with remote NO₂ sensor for mounting at a higher location.

The GDT gas sensors are encapsulated in field replaceable sensors pods that are located on the bottom of the enclosure. The pod design provides a greater area of gas sampling then that of devices that utilize a single vent hole. Replacement pods come pre-calibrated and ready for installation.

The GDT is available with either Analog, BACnet or Modbus outputs for communication with a building automation system. Standard features include LCD display for configuration and local display as well as status LED's. Optional features include: 1 or 2 adjustable control/alarm relays, adjustable audible (buzzer) & visual (strobe) alarms as well as various temperature sensor.

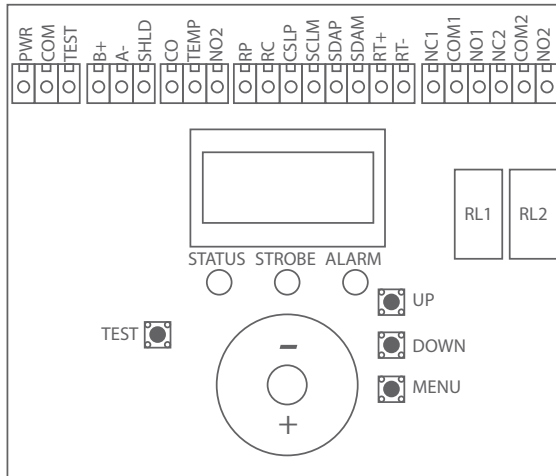
The GDT is housed in an IP65 polycarbonate enclosure with a hinged and gasketed cover that provides ease of installation and access for set up and configuration.

SPECIFICATIONS

GAS TYPE DETECTED	Carbon Monoxide (CO) and/or Nitrogen Dioxide (NO ₂)
SENSOR TYPE	Electrochemical, diffusion sampling
SENSOR APPROVALS	CO Sensor is a UL approved component for UL 2075/with UL 2034, File No. E240671
SENSOR ACCURACY	Carbon Monoxide: ±5 ppm or ±5% of reading Nitrogen Dioxide: ±0.2 ppm or ±5% of reading
MEASUREMENT RANGE	Carbon Monoxide: 0-500 ppm, adjustable 100-500 ppm Nitrogen Dioxide: 0-10 ppm
RESPONSE TIME	< 30 seconds typical
WARM-UP TIME	1 minute
SENSOR COVERAGE AREA	700m ² (7500ft ²) or 15m (50ft) radius
SENSOR LIFE SPAN	Carbon Monoxide: 5-7 years in air Nitrogen Dioxide: 2 years
SENSOR REPRODUCIBILITY (SAME DAY)	±2%
LONG TERM DRIFT	Carbon Monoxide: <5% per year Nitrogen Dioxide: Zero - <±2 ppm/year Span - <2% signal/month
POWER SUPPLY	24 Vdc ±20% or 24 Vac ±10% (non-isolated half-wave rectified)
PROTECTION CIRCUITRY	Reverse voltage and transient protected
OUTPUT SIGNAL TYPE	4-20 mA (3-wire), 0-5 Vdc/0-10 Vdc, BACnet® or Modbus
NETWORK INTERFACE	Hardware: 2 wire RS-485 Software: Native BACnet® MS/TP or Modbus RTU Baud Rate: Locally set 9600, 19200, 38400, 57600, 76800, or 115200 MAC Address Range: 0-255 (Factory default is 1) (128 devices max on one daisy chain)
CURRENT CONSUMPTION	425 mA @ 24 Vac max, 220 mA @ 24 Vdc max (test mode)
OUTPUT DRIVE @ 24 VDC	Current: 550Ω maximum Voltage: 10,000Ω minimum
AMBIENT OPERATING RANGE	-20 to 50°C (-4 to 122°F), 15 to 90 %RH non-condensing
STORAGE TEMPERATURE	-30 to 60°C (-22 to 140°F)
LCD	Viewable or concealed (with cover closed) Units: ppm for CO/NO ₂ , °C/°F for optional temperature Size: 35mm W x 15mm H (1.4" x 0.6"), alpha-numeric 2-line x 8 characters Backlight: Enable or disable via menu
USER INTERFACE	Silence/Test button, Bi-color status LED, Red LED alarm indicator, White high intensity LED strobe (optional)
OPTIONAL TEMPERATURE SIGNAL	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 Type: Analog, BACnet® or Modbus Sensor Accuracy: ±0.2°C (±0.36°F) Range: -20 to 50°C (-4 to 122°F) or 0 to 50°C (32 to 122°F) (field selectable) Output: Analog - 0-5/0-10 Vdc or 4-20mA (As per output selected) BACnet®/Modbus - Network Variable
OPTIONAL RELAY OUTPUTS	Contact Ratings: Form C (NO + NC), 5 Amps @ 140 Vac, 5A @ 30 Vdc Relay Setpoint + Hysteresis: Programmable via menu Relay Time Delay: Programmable via menu
OPTIONAL ALARM	Audible: Buzzer, 93dB @ 30 cm Visual: High intensity white LED strobe
MAIN ENCLOSURE	Material/Rating: Grey Polycarbonate, UL94 V0, IP65 (NEMA 4X) with Security Screw installed Dimensions Incl. Sensor Pod: 202.3mm H x 184mm W x 54.3mm D (8" x 7.24" x 2.15") Weight Incl. Sensor Pod: 515 grams (1.14 lbs)
REMOTE NO₂ ENCLOSURE	Material/Rating: Grey Polycarbonate, UL94 V0, IP65 (NEMA 4X) Dimensions Incl. Sensor Pod: 109.5mm H x 83.3mm W x 52mm D (4.31" x 3.28" x 2.05") Weight Incl. Sensor Pod: 109 grams (0.24 lbs)
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG), Top or bottom conduit entry 22.73mm (0.875") hole
APPROVALS	CE
COUNTRY OF ORIGIN	Canada



WIRING INFORMATION



TERMINAL	FUNCTION	
PWR	+24 Vdc/ac	
COM	Common	
TEST	Digital Input	
B+	BACnet® or Modbus	} Only on models with BACnet®/Modbus Output
A-	BACnet® or Modbus	
SHIELD	BACnet® or Modbus	
CO	Analog Output	} Only on models with Analog Output or if feature ordered
TEMP	Analog Output	
NO ₂	Analog Output	
RP	Remote NO2 Sensor	} Only on models with Remote NO ₂ Sensor
RC	Remote NO2 Sensor	
CSLP	Remote NO2 Sensor	
SCLM	Remote NO2 Sensor	
SDAP	Remote NO2 Sensor	
SDAM	Remote NO2 Sensor	
RT+	Resistive Output	} Only on models with Resistive Temperature Sensor option
RT-	Resistive Output	
NC1	Relay Output	} Only on models with 1 or 2 Adjustable Relays option
COM1	Relay Output	
NO1	Relay Output	
NC2	Relay Output	} Only on models with 2 Adjustable Relays option
COM1	Relay Output	
NO2	Relay Output	

ORDERING

PRODUCT	GDT	Carbon Monoxide/Nitrogen Dioxide Gas Detector
SENSORS	COX NO2 CNC CNR	Carbon Monoxide Nitrogen Dioxide Carbon Monoxide/Nitrogen Dioxide - Combination Carbon Monoxide/Nitrogen Dioxide - Remote
MOUNTING	SM	Surface Mount - IP65
DISPLAY	C V	Concealed LCD Viewable LCD
OUTPUT	I V B M	4-20 mA 0-5 Vdc/0-10Vdc BACnet® Modbus
RELAY	XX R1 R2	None 1 Adjustable Relay Output 2 Adjustable Relay Outputs
ALARM	X A	None Audible (Buzzer) & Visual Alarm (Strobe)
TEMPERATURE SENSOR	XX TX 02 05 06 07 08 12 13 14 20 24 59	None Analog, BACnet® or Modbus 100 Ω Platinum 1801 Ω NTC Thermistor 3000 Ω NTC Thermistor 10,000 Ω Type 3, NTC Thermistor 2.252K Ω NTC Thermistor 1000 Ω Platinum 1000 Ω Nickel 10,000 Ω Type 3 Thermistor with 11,000 shunt resistor 20,000 Ω NTC Thermistor 10,000 Ω Type 2, NTC Thermistor 10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85)

NOTE: ANALOG, THERMISTOR AND RTD TEMPERATURE OUTPUTS ARE NOT AVAILABLE ON MODELS WITH BACnet® OR MODBUS OUTPUTS.

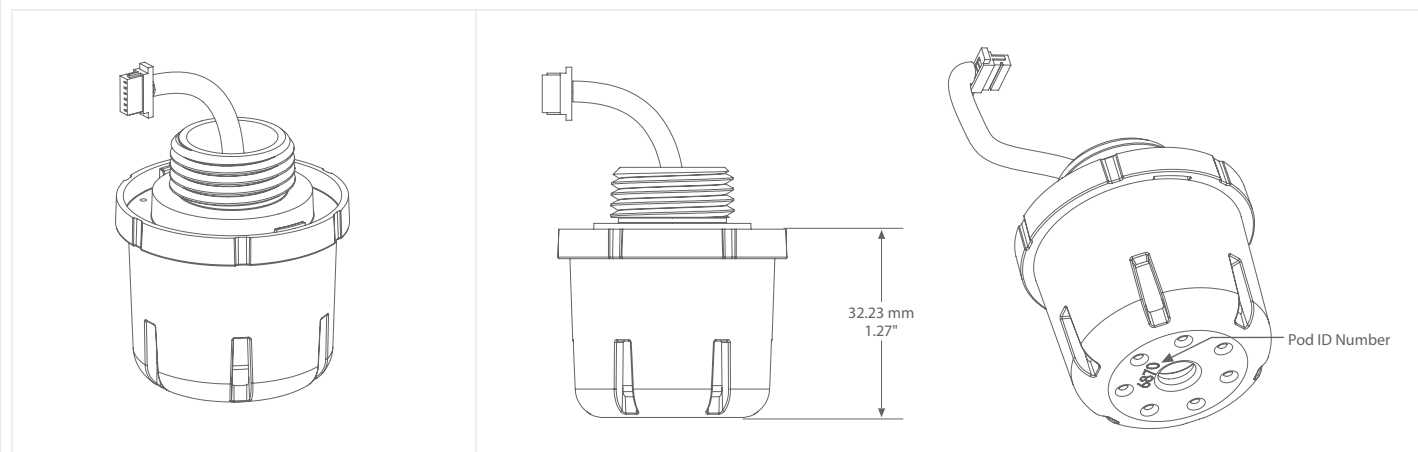
PART NUMBER

GDT

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.



SENSOR PODS



GDP SERIES

ORDERING - SENSOR POD REPLACEMENT

SENSOR POD ID NUMBER	DESCRIPTION	ORDERING PART NUMBER
6869	Gas Detector Replacement Pod, Carbon Monoxide	GDPCOXXX
6870	Gas Detector Replacement Pod, Nitrogen Dioxide	GDPNO2XX
2228	Gas Detector Replacement Pod, Carbon Monoxide, 100 Ω Platinum	GDPCOX02
2229	Gas Detector Replacement Pod, Carbon Monoxide, 1801 Ω NTC Thermistor	GDPCOX05
2230	Gas Detector Replacement Pod, Carbon Monoxide, 3000 Ω NTC Thermistor	GDPCOX06
2231	Gas Detector Replacement Pod, Carbon Monoxide, 10,000 Ω Type 3, NTC Thermistor	GDPCOX07
2232	Gas Detector Replacement Pod, Carbon Monoxide, 2.252K Ω NTC Thermistor	GDPCOX08
2233	Gas Detector Replacement Pod, Carbon Monoxide, 1000 Ω Platinum	GDPCOX12
2234	Gas Detector Replacement Pod, Carbon Monoxide, 1000 Ω Nickel	GDPCOX13
2235	Gas Detector Replacement Pod, Carbon Monoxide, 10,000 Ω Type 3 Thermistor with 11,000 shunt resistor	GDPCOX14
2236	Gas Detector Replacement Pod, Carbon Monoxide, 20,000 Ω NTC Thermistor	GDPCOX20
2237	Gas Detector Replacement Pod, Carbon Monoxide, 10,000 Ω Type 2, NTC Thermistor	GDPCOX24
2238	Gas Detector Replacement Pod, Carbon Monoxide, 10,000 Ω , 25°C, $\pm 1\%$, B = 3435 $\pm 1\%$ (25/85)	GDPCOX59
2239	Gas Detector Replacement Pod, Carbon Monoxide, Analog, BACnet/Modbus Temperature Option	GDPCOXTX
6871	Gas Detector Replacement Pod, Nitrogen Dioxide, 100 Ω Platinum	GDPNO202
6872	Gas Detector Replacement Pod, Nitrogen Dioxide, 1801 Ω NTC Thermistor	GDPNO205
6875	Gas Detector Replacement Pod, Nitrogen Dioxide, 3000 Ω NTC Thermistor	GDPNO206
6876	Gas Detector Replacement Pod, Nitrogen Dioxide, 10,000 Ω Type 3, NTC Thermistor	GDPNO207
6884	Gas Detector Replacement Pod, Nitrogen Dioxide, 2.252K Ω NTC Thermistor	GDPNO208
6891	Gas Detector Replacement Pod, Nitrogen Dioxide, 1000 Ω Platinum	GDPNO212
6895	Gas Detector Replacement Pod, Nitrogen Dioxide, 1000 Ω Nickel	GDPNO213
6896	Gas Detector Replacement Pod, Nitrogen Dioxide, 10,000 Ω Type 3 Thermistor with 11,000 shunt resistor	GDPNO214
6897	Gas Detector Replacement Pod, Nitrogen Dioxide, 20,000 Ω NTC Thermistor	GDPNO220
6898	Gas Detector Replacement Pod, Nitrogen Dioxide, 10,000 Ω Type 2, NTC Thermistor	GDPNO224
6899	Gas Detector Replacement Pod, Nitrogen Dioxide, 10,000 Ω , 25°C, $\pm 1\%$, B = 3435 $\pm 1\%$ (25/85)	GDPNO259
6900	Gas Detector Replacement Pod, Nitrogen Dioxide, Analog, BACnet/Modbus Temperature Option	GDPNO2TX

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.



CALIBRATION KIT



GDT-CALKIT-CNC

DESCRIPTION

The GDT-CALKIT-CNC is a kit to correctly calibrate the Greystone Model GDT CO/NO₂ detectors. The GDT-CALKIT-CNC includes:

- Tubing
- Regulator
- Calibration Cap
- Carrying Case
- Sponge (For CO only)

Note: Calibration Gas is not included. To be purchased locally.

Calibration Gas Requirements (103 liter tanks):

250ppm CO in air,
10ppm NO₂ in air

PRE-CALIBRATED SENSOR REPLACEMENT:

The GDT sensor features a gas sensor POD that is pre-calibrated. This means that the POD can simply be replaced with a new calibrated POD if desired without having to remove the enclosure and the main processor board. This sensor swap can be completed in seconds. Simply unplug the POD cable connection from the main board in enclosure, remove the POD by unscrewing counter clockwise, install the POD by screwing it in clockwise and reconnect the POD cable to connector on main PCB. There is no need to make any adjustments or apply gas to the transmitter using the sensor swap method.