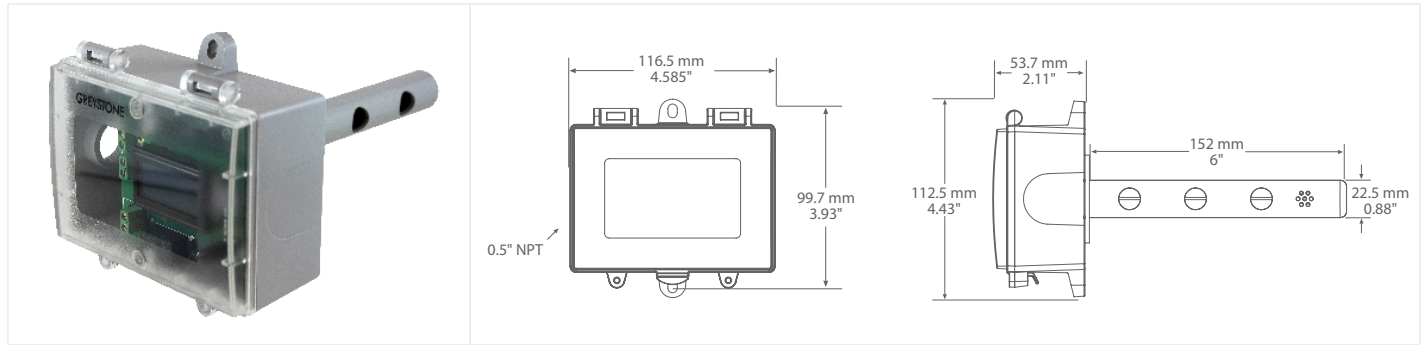




## DUCT AIR QUALITY TRANSMITTER



### AQDT SERIES

### PRODUCT DESCRIPTION

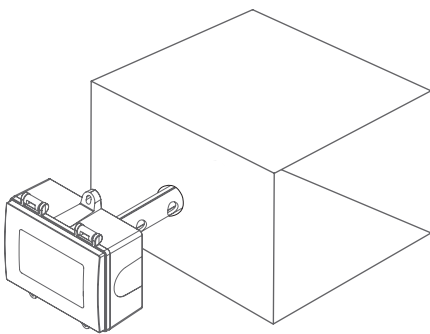
The duct indoor air quality sensor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants and from human activities. The sensor captures all VOC emissions that are completely invisible to CO<sub>2</sub> sensors. A weatherproof polycarbonate enclosure is provided for ease of installation.

### TYPICAL INSTALLATION

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

The duct type 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.

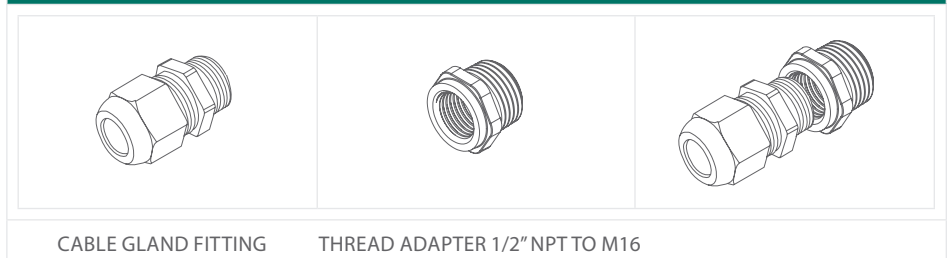
The enclosure provides mounting tabs for ease of installation.



### SPECIFICATIONS

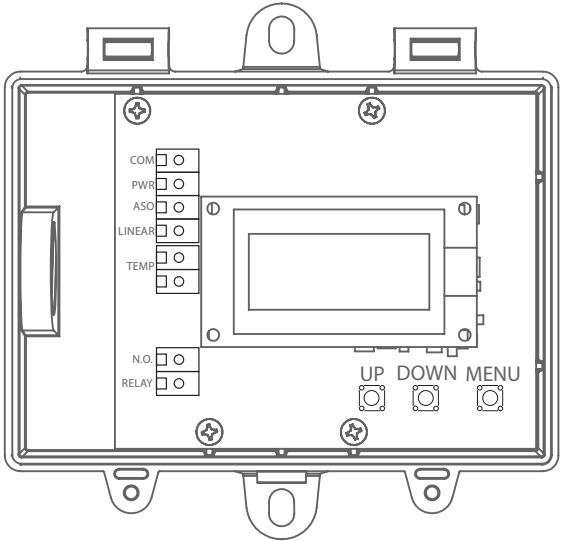
SENSOR TECHNOLOGY	MEMS metal oxide semiconductor VOC sensor
MEASUREMENT RANGE	450-2000 ppm CO <sub>2</sub> equivalent or 0-100% (menu selectable)
DRIFT COMPENSATION	Automatic baseline correction
POWER SUPPLY	20-28 Vac/dc (non-isolated half-wave rectified)
CONSUMPTION	35 mA max @ 24 Vdc
INPUT VOLTAGE EFFECT	Negligible over specified operating range
PROTECTION CIRCUITRY	Reverse voltage protected, over voltage protected
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 5-95 %RH non-condensing
LINEAR OUTPUT SIGNAL	0-5 / 0-10 Vdc (menu selectable) = 0-2000 ppm CO <sub>2</sub> equivalent
ANALOG STEPPED OUTPUT SIGNAL	Three steps representing Good, Fair, and Poor air quality (each step is independently adjustable from 0-10 Vdc)
OUTPUT DRIVE CAPABILITY	10,000 Ω minimum
PROGRAMMING AND SELECTION	Via internal push-buttons and LCD menu
WARM-UP TIME	5 minutes
LCD RESOLUTION	1 ppm / 1%
LCD SIZE	35mm W x 15mm H x (1.4" x 0.6") alpha-numeric 2 line x 8 characters
LCD BACKLIGHT	Enable or disable via menu
WIRING CONNECTIONS	Screw terminal blocks, 14 to 22 AWG
DUCT PROBE	152mm L x 22.5mm D (6" x 0.88")
RELAY OUTPUT	Form A contact (N.O.) 5 Amps @ 250 Vac, 5 Amps @ 30 Vdc for resistive load 2 Amps @ 250 Vac, 2 Amps @ 30 Vdc for inductive load
OPTIONAL TEMPERATURE SENSOR	Various thermistors and RTDs, 2 wire resistive output
ENCLOSURE	<b>B:</b> Grey polycarbonate, UL94-V0, IP65 (NEMA 4X) <b>F:</b> Same as B, with thread adapter (1/2" NPT to M16) and cable gland fitting
DIMENSIONS	116.5mm W x 99.7mm H x 53.7mm D (4.58" x 3.93" x 2.11")
COUNTRY OF ORIGIN	Canada

### ACCESSORIES - INCLUDED WITH F STYLE ENCLOSURE





## WIRING INFORMATION



TERMINAL	FUNCTION
PWR	Power input
COM	Common
ASO	Analog Stepped Output 0-10 Vdc
LINEAR	Analog Output 0-5 or 0-10 Vdc
TEMP	Resistance Output
TEMP	Resistance Output
RELAY	Digital Output

Terminals only present if option is ordered.

## ORDERING

PRODUCT	AQDT	Duct Air Quality Transmitter
ENCLOSURE	<b>B</b>	Polycarbonate with hinged and gasketed cover
	<b>F</b>	Same as B, with thread adapter & cable gland fitting
OPTIONAL TEMPERATURE SENSOR	<b>00</b>	None
	<b>02</b>	100 Ω Platinum RTD, IEC 751, 385 Alpha, thin film
	<b>05</b>	1801 Ω NTC Thermistor, ±0.2°C
	<b>06</b>	3000 Ω NTC Thermistor, ±0.2°C
	<b>07</b>	10,000 Ω Type 3, NTC Thermistor, ±0.2°C
	<b>08</b>	2.252K Ω NTC Thermistor, ±0.2°C
	<b>12</b>	1000 Ω Platinum RTD, IEC 751, 385 Alpha, thin film
	<b>13</b>	1000 Ω Nickel RTD, Class B, DIN 43760
	<b>14</b>	10,000 Ω Type 3, NTC Thermistor, ±0.2°C c/w 11,000 shunt resistor
	<b>20</b>	20,000 Ω NTC Thermistor, ±0.2°C
	<b>24</b>	10,000 Ω Type 2, NTC Thermistor, ±0.2°C
	<b>59</b>	10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85)

## PART NUMBER

AQDT

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



Greystone Energy Systems, Inc.  
150 English Drive, Moncton,  
New Brunswick, Canada E1E 4G7

Ph: +1 (506) 853-3057 Fax: +1 (506) 853-6014  
North America: 1-800-561-5611  
E-mail: mail@greystoneenergy.com