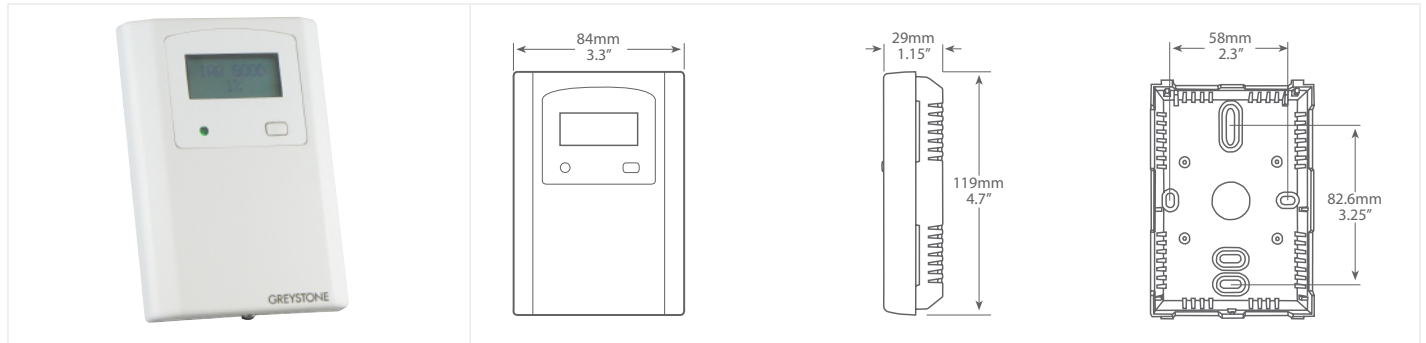




ROOM AIR QUALITY TRANSMITTER



AIR41 SERIES

PRODUCT DESCRIPTION

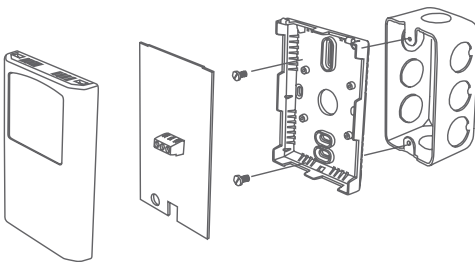
The AIR41 Indoor Air Quality Sensor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants and from human activities. The sensor captures all VOC emissions that are completely invisible to CO₂ sensors. The AIR4 provides a linear analog signal output of 0-5 or 0-10 Vdc for connection to a building automation system as well as an analog stepped output of 0-10Vdc. Optional features such as a temperature sensor, manual override and adjustable relay output are available.

TYPICAL INSTALLATION

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

The AIR41 series can be mounted directly to a single gang electrical box or directly to a wall. The backplate includes many mounting hole configurations to allow for mounting on a variety of electrical boxes.

The basic AIR41 has a 4 wire configuration with a screw block terminal provided for connection to the Building Automation System.

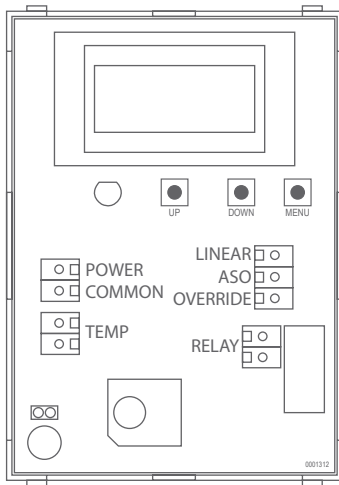


SPECIFICATIONS

SENSOR TECHNOLOGY	MEMS metal oxide semiconductor VOC sensor
MEASUREMENT RANGE	450-2000 ppm CO ₂ 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 ₂ 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
LED INDICATOR	Tri-color (Good = Green, Fair = Blue, Poor = Red), enable or disable via menu
WIRING CONNECTIONS	Screw terminal blocks, 14 to 22 AWG
OPTIONAL OVERRIDE SWITCH	Front panel switch with FET output, 30 Vdc @ 50 mA max
OPTIONAL RELAY OUTPUT	Form A contact (N.O. or N.C.) 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc (Relay action, trip point and hysteresis set via menu)
OPTIONAL TEMPERATURE SENSOR	Various thermistors and RTDs, 2 wire resistive output
ENCLOSURE	Wall mount enclosure, White ABS IP30 (NEMA 1)
DIMENSIONS	84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")
WEIGHT	122 gm (4.3oz)
COUNTRY OF ORIGIN	Canada



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
OVERRIDE	Digital Output
*TEMP	Resistive Temperature Sensor
*TEMP	Resistive Temperature Sensor
RELAY	Relay Output
RELAY	Relay Output

*Terminals only present if option is ordered.

ORDERING

PRODUCT	AIR41	Room Air Quality Monitor, 0-2000ppm CO ₂ Equivalent
LCD DISPLAY	0 1	Concealed Viewable
LED INDICATOR, TRI-COLOR	0 1	Concealed Viewable
SENSOR	T2 T5 T6 T7 T8 T12 T13 T14 T20 T24 T59	100 Ω Platinum RTD, IEC 751, 385 Alpha, thin film 1801 Ω, NTC Thermistor, ±0.2°C 3000 Ω, NTC Thermistor, ±0.2°C 10,000 Ω, type 3, NTC Thermistor, ±0.2°C 2.252K Ω, NTC Thermistor, ±0.2°C 1000 Ω, Platinum RTD, IEC 751, 385 Alpha, thin film 1000 Ω, Nickel RTD, Class B, DIN 43760 10K Ω, type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor 20,000 Ω, NTC Thermistor, ±0.2°C 10,000 Ω, type 2, NTC Thermistor, ±0.2°C 10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85)
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE, LEAVE BLANK IF NO OPTION REQUIRED)	S R	Pushbutton momentary switch - N.O. Relay output

PART NUMBER

AIR41

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