



# AZ-AIR41

## ROOM AIR QUALITY TRANSMITTER

### DESCRIPTION

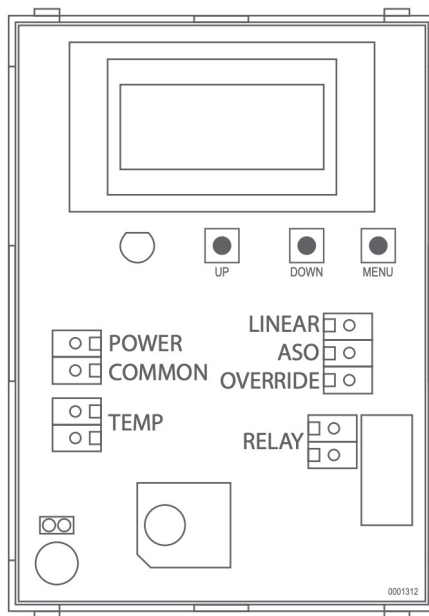
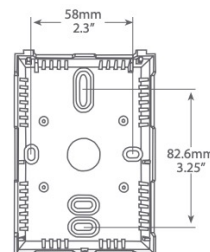
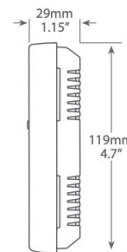
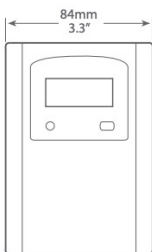
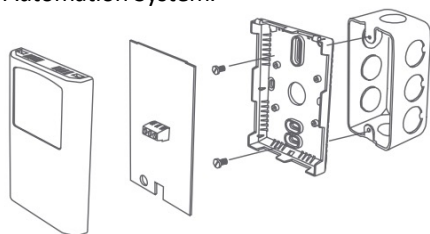
The AZ-AIR41 Indoor Air Quality Sensor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants and from human activities. The sensor captures all VOC emissions that are completely invisible to CO2 sensors. The AIR41 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 AZ- 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.



### 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
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RELAY	Relay Output
RELAY	Relay Output

\*Terminals only present if option is ordered

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HVAC Manufacturer's Representative



# AZ-AIR41

## ROOM AIR QUALITY TRANSMITTER

### SPECIFICATIONS

SENSOR TECHNOLOGY	MEMS metal oxide semiconductor VOC sensor
MEASUREMENT RANGE	450-2000 ppm CO2 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 CO2 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 $\Omega$ 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

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## ORDERING

PRODUCT	AIR41	Room Air Quality Monitor, 0-2000ppm CO2 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 $\Omega$ Platinum RTD, IEC 751, 385 Alpha, thin film 1801 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 3000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 $\Omega$ , type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 2.252K $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 1000 $\Omega$ , Platinum RTD, IEC 751, 385 Alpha, thin film 1000 $\Omega$ , Nickel RTD, Class B, DIN 43760 10K $\Omega$ , type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ c/w 11K shunt resistor 20,000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 $\Omega$ , type 2, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 $\Omega$ , 25 $^{\circ}\text{C}$ , $\pm 1\%$ , B = 3435 $\pm 1\%$ (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

AQDT

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