AXIO

Product Overview

The AX-GS-AQ4x range of air quality sensors measure the combined pollutants (VOC's) in an area and output an analogue signal of the air quality. These are used to input to the BMS to enable efficient use of recirculated air in an HVAC system. The sensors use a MEMS Metal Oxide film which is sensitive to a range of odours, smoke, solvents and gases.

Features

- Room and Duct Sensor versions
- Combines all pollutants to give a mixed gas concentration of the air quality
- Low cost solution
- Analogue output, stepped or relay outputs

Product Specifications

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Sensor Type:		MEMS Metal Oxide film
Power Supply:		20 to 28Vac/dc
Power Consumption:		35mA @ 24Vdc
Measurement Range:		0-2000ppm CO_2 equivalent
Calibration Interval:		2 years
Accuracy:		+/- 5% FSD
Output:	Standard	analogue stepped output in 4 steps adjustable levels from 0-10Vdc
	Standard	0-5/ 10Vdc linear
	optional	relay 2A @140Vac/30Vdc SPCO
Ambient Temp. Range:		0 to +50'C
LED Display:	Room Only	3 LED's indicating pollution levels Red/Green/Blue
LCD Display:	Option	2 line 8 character
Housing:	Material	Flame retardant ABS
	Room Dimensions	84 x 119 x 29 mm
	Duct Dimensions	145 x 100 x 63 mm Probe 177 x 25.4 diam
Protection:	Duct Housing	IP65
	Room Housing	IP30
Conformity:		CE marked, EMC, LVD.
Country of Origin:		Canada

Order Codes

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AX-GS-AQ41-00	Room Air Quality Sensor 0-10Vdc stepped & linear output
AX-GS-AQ41-00-R	Room Air Quality Sensor 0-10Vdc stepped linear & relay output
AX-GS-AQ41-10	Room Air Quality Sensor 0-10Vdc stepped and linear output & LCD Display
AX-GS-AQ41-01	Room Air Quality Sensor 0-10Vdc stepped and linear output &LED
AX-GS-AQ42-00	Duct Air Quality Sensor 0-10Vdc stepped & linear output
AX-GS-AQ42-00-R	Duct Air Quality Sensor 0-10Vdc stepped linear & relay output
AX-GS-AQ42-10	Duct Air Quality Sensor 0-10Vdc stepped and linear output & LCD Display

Mounting Instructions

The room sensor has mounting provisions to install directly on a standard electrical box and should be mounted at a height about five feet from the floor of the area to be controlled. For best operation, do not mount the sensor near doors, opening windows, supply air diffusers or other known air disturbances.

The duct sensor should be mounted on the outside of a return air duct with the air 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 such as kitchen fume hoods where oil and grease may contaminate the sensor filter.
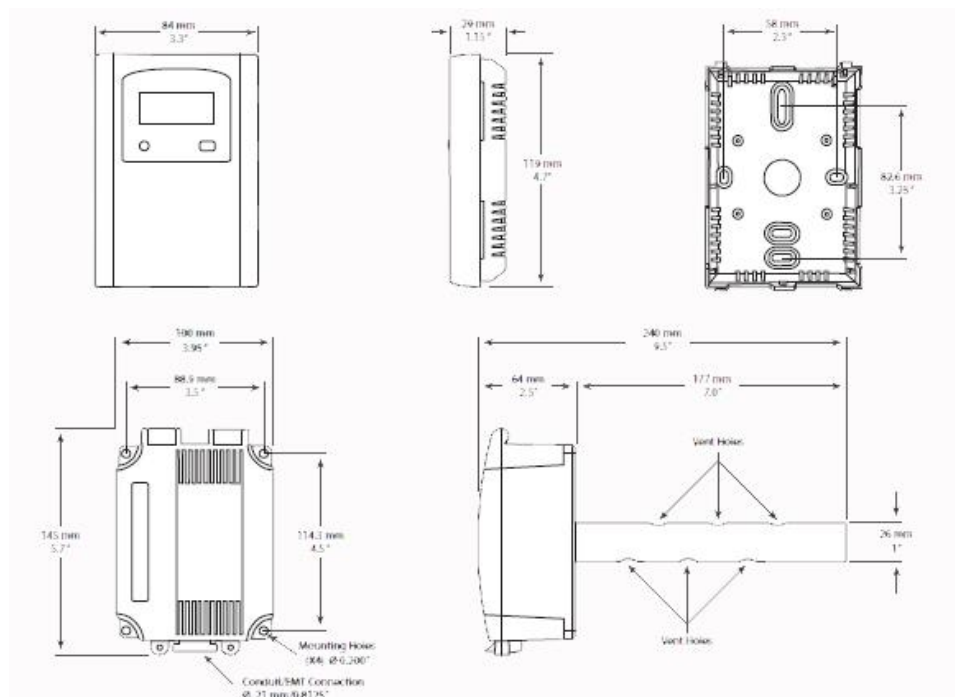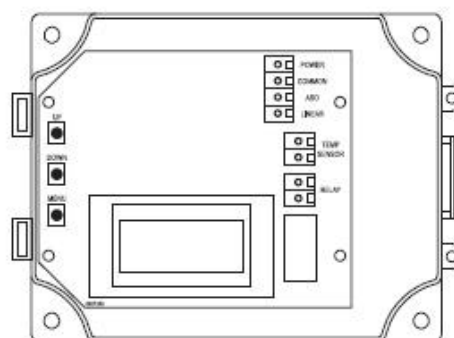
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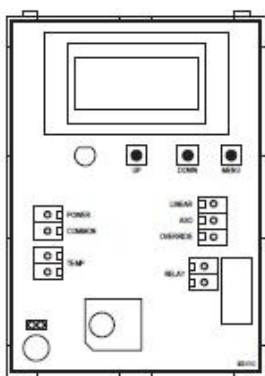
Terminal	Function
POWER	Power input
COMMON	Power & Signal Common
LINEAR	Analog Output 0-5 or 0-10 Vdc
ASO	Analog Stepped Output 0-10 Vdc
OVERRIDE	Digital Output (Room Only)
*TEMP	Resistive Temperature Sensor
*TEMP	Resistive Temperature Sensor
*RELAY	Relay Output
*RELAY	Relay Output

* Terminals only present if option ordered

Set Up Menus

The menus may be accessed any time after the initial five minute warm-up period. The menus are accessed with the three buttons on the circuit board labeled MENU, UP and DOWN. The Configuration Menu is used to set the operation mode, relay modes and for calibration. The standard menu controls the Analog Stepped Output (ASO). The factory hardware menu (not normally used by the customer) is also used for calibration and for setting the available hardware options. See operation manual for full explanation of the all menus and set-up procedures.