HVAC Duct Mounted VOC Transmitter

Model: AI-VOC-D

The Duct VOC Detector is a state of the art instrument to measure the VOC in air quality measurements in a HVAC duct & transmits the VOC signal as an analog 4–20mA output. The VOC sensor used is a MOX (metal oxide) based gas sensor. The Duct VOC detector helps in analyzing the Indoor Air Quality in demand control ventilation systems & accurately transmits the VOC concentration levels. For the specifications given below, ethanol in clean air has been used as proxy gas for typical indoor air events. The duct VOC detector gives 2 individual analog 4–20mA outputs, 1 each for the duct VOC concentration & temperature in Deg. C.

The VOC measurement range is from 0 to 500 PPM (Ethanol in clean air is used as proxy gas) & the robust algorithm makes the VOC detector sensitive to most VOC gases typically present in indoor environments. An optional RS 485 modbus communication is available for connecting to BMS/EMS in multi-drop topology.



Specifications

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Manufacturer	ACE Instruments
Model	AI-VOC-D
Measuring Principle	Metal Oxide (MOX) based VOC sensor sensitive to most VOC gases present in indoor environments
Measuring Range	0 to 500 PPM (Ethanol in Clean Air) 0.0 to 50.0 °C for Temperature
Resolution	1 PPM least count
Display	Optional 2 Line, 4 digit 7 Segment LED Display of height 0.4"
Mounting	Duct mounting metal tube of length 200 mm. with adjustable clamp for duct size installation
Switch on Behaviour	Time until reliably detecting VOC events < 60 seconds
Sensor Working Life	> 3 years @ 10-35 Deg. C & 40-80 % R.H. for general applications
Accuracy	Max of $<\pm15$ PPM @ 25 °C and 50% R.H. in zero air +/- 0.5 °C for Temperature on Full Scale reading
Communication	Optional RS 485 modbus RTU protocol communication
Output	4-20mA Output corresponding to input range selected
Power Supply	12–24VDC, by the way of 110–230 VAC, 50–60Hz Adaptor provided along with (Fits well in USA and European countries Also)
Operating Conditions	Temperature : -10 to 50 °C Humidity : 0 to 90% RH (strictly non condensing)
Enclosure Type	Wall Mounting Type IP54 Rating compliant ABS Plastic Body with duct clamp
Enclosure Size	Electronic Enclosure: 80 (W) x 82 (H) x 55 (D) mm. Duct Length: 200 mm. with Height Adjustable Duct Mounting Clamp
Calibration	Each transmitter comes with factory calibration certificate
Supply Scope	1 Unit of Duct VOC Transmitter, Power Adapter, Instruction Manual and Factory Calibration Certificate
Warranty	12 Months Manufacturer warranty

Temp | Humidity | Pressure | Differential Pressure | Vacuum | Gases | Particle | Air Flow Moisture | Dissolved Oxygen | Radiation | Air Quality | Light / Lux | Distance | Vibration

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