Indoor Air Quality Transmitters

Special Features:

Indoor Air Quality (IAQ)/Volatile Organic Compound (VOC) gas transmitters

- IAQ multi-gas detection
- Continuous monitoring
- Long-life solid state sensor
- Easy sensitivity adjustment
- Room, 0-10 VDC signal
- Duct, 0/2-10 VDC, 0(1)-5 VDC, or 0/4-20 mA signal

Applications:

The air quality sensors measure the concentration of multiple gases and odorous substances in the air with constant output. These substances, for example, may be tobacco smoke, kitchen vapors, human odors and unpleasant smells. In conjunction with a control device, it controls the fresh air supply according to the quality of the air in the room; as a result, energy savings can be made. In combination with a measurement device, it provides an indication of air quality in the room.

Specifications:

Indoor Air Quality Transmitters	VOC-820 (Room)	VOC-810 (Duct)
Electrical Power supply Power consumption	24 VAC, ± 24%, 50 to 60 Hz 3.0 VA	
Sensor Performance Gas detected	Measure contaminants (multiple, different gases; ie., hydrocarbons, hydrogen, alcohols, benzene, carbon monoxide, formaldehyde, cigarette smoke and many other gases)	
Sensor element	Solid state, semiconductor	
Range	0 to 100% of contaminants	
Sensitivity	Adjustable, potentiometer (to room conditions after approx. 2 days)	
Response time	< 60 sec at 98 ft/min (0.5 m/s)	< 100 sec at 98 ft/min (0.5 m/s)
Load max	> 5K Ohms	
Type of Control Analog output signal	0 to 10 VDC	0(2) to 10 VDC or 0(1) to 5 VDC 0(4) to 20 mA w/less than 500 Ohms
Operability	Attained after a warm-up period of 130 min.	
Environmental Permissible air velocity	2.953 ft/min (15 m/s)	
Permissible ambient temperature - working	32 F to 104 F (0 C to 40 C)	4 F to 158 F (-20 C to 70 C)
- storage	-13 F to 158 F (-20 C to 70 C)	
Permissible ambient humidity	5 to 95% RH	
Physical Enclosure, standard - material	Thermoplastic, fire retardant	
- color	White	Yellow, black
- protection	NEMA 1 (IP 30, EN 60529)	NEMA 1 (IP 40, EN 60529 w/conduit connection IP 54, EN 60536)
- installation	Surface mounted	Duct mounted, bracket incl. Probe insertion 1.57 to 6.54 (40 to 166 mm)
Dimensions W x H x D	3.0 x 3.0 x 1.34 in (76 x 76 x 34 mm)	2.9 x 5.5 x 2.5 in (73 x 140 x 64 mm) Probe Ø 1.18 x 7.24 in (Ø 30 x 183 mm)

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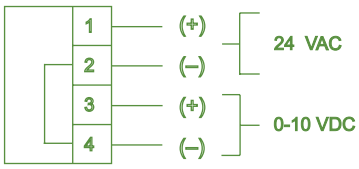
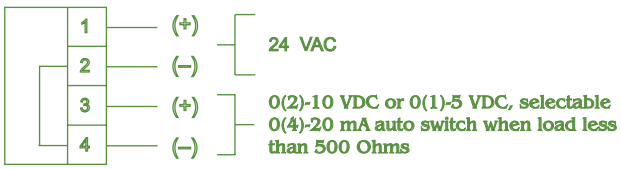
Cable entry	Backside, center of base	2 holes for PG 11, 0.75 in (19 mm) 1/2" conduit adapter order #370300002
Wire connection Wire size	Terminal block, screw type for wire leads Max 14 AWG (2.5 mm²)	
Weight	0.3 lb (0.1 kg)	0.62 lb (0.28 kg)
Warranty	12 months material and workmanship	
Part Numbers	VOC-820	VOC-810

WIRING CONFIGURATION

VOC-820 (Room)

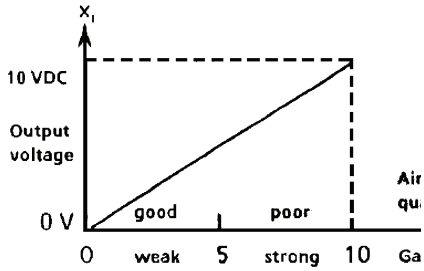


VOC-810 (Duct)

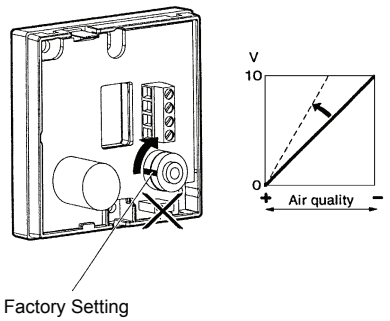


FIELD ADJUSTMENTS

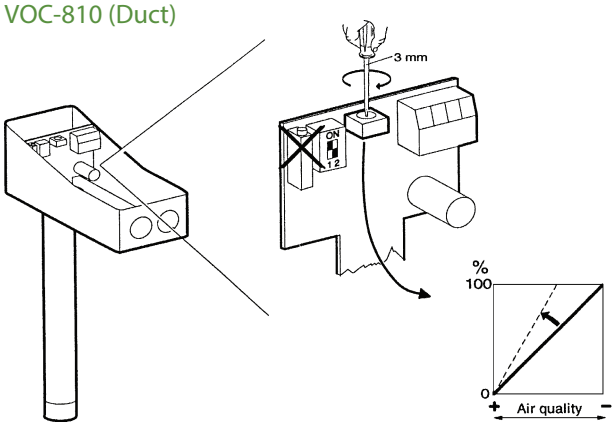
Sensitivity adjustment and output signal selection



VOC-820 (Room)



VOC-810 (Duct)



Factory Setting ➡

S1	R_L >500 Ω	R_L <500 Ω
ON 1 2	0 ... 10 V	0 ... 20 mA
	2 ... 10 V	4 ... 20 mA

S1	R_L >250 Ω	R_L <250 Ω
	0 ... 5 V	0 ... 20 mA
	1 ... 5 V	4 ... 20 mA