TASSERON
SENSORS & CONTROLS

DATASHEET

DUCT VOC & HUMIDITY SENSOR

Duct sensor for air quality for volatile organic compounds (VOC) and relative humidity (RH)

FEATURES

- VOC and Relative Humidity measurement
- Durable NEMA 4X/IP65 injection-molded watertight enclosure
- Quick Connect wire terminals
- TVOC from 0--60,000ppb measured as CO2 equivalent output
- Standard 2.5% RH accuracy
- AC or DC power supply accepted
- 0 to 10V Analog output signal(s)
- Coated circuit boards for moisture resistance
- Adjustable length mounting flange with anti-vibration pad
- 1/2” NPT conduit port with additional conduit adapter included
- CE & RoHS compliant
- 5 year limited warranty
- Made in the USA

GENERAL INFORMATION

Duct mounted VOC Air Quality & Relative Humidity in the NEMA 4X/IP65 Safe Box plastic enclosure. Circuit boards are coated to resist moisture with onboard DIP switches to offer field selectable output changes. Tasseron utilizes a dust-proof VOC measuring element with built-in humidity compensation.

The hinged polycarbonate cover is designed to stay open during installation or can be easily removed. The Quick Connect wire terminals simplify installation a save on labor costs.

The Tasseron VOC sensor is converted to a CO2 equivalent level of measurement for additional contaminants from other sources other than just respiration. The sensor signal does not indicate the type of gas or its concentration, rather the amount of Volatile Organic Compounds (VOCs) to monitor the overall air quality.

SPECIFICATIONS

Enclosure Rating:	Weatherproof NEMA 4X/IP 66
Enclosure Material:	UL 94 V-2, UV resistant injection-molded polycarbonate
Cover:	Quick snap with hinges and screw down ability
Mounting:	Quick mount bracket system with snap in place housing
Probe Length:	Adjustable up to 8”
Probe Material:	Glass filled nylon UL 94 HB
Connection:	AWG 22-16 / 0.35—1.5mm² spring-loaded, Quick Connect wire terminals

SPECIFICATIONS CONT.

VOC Sensor:

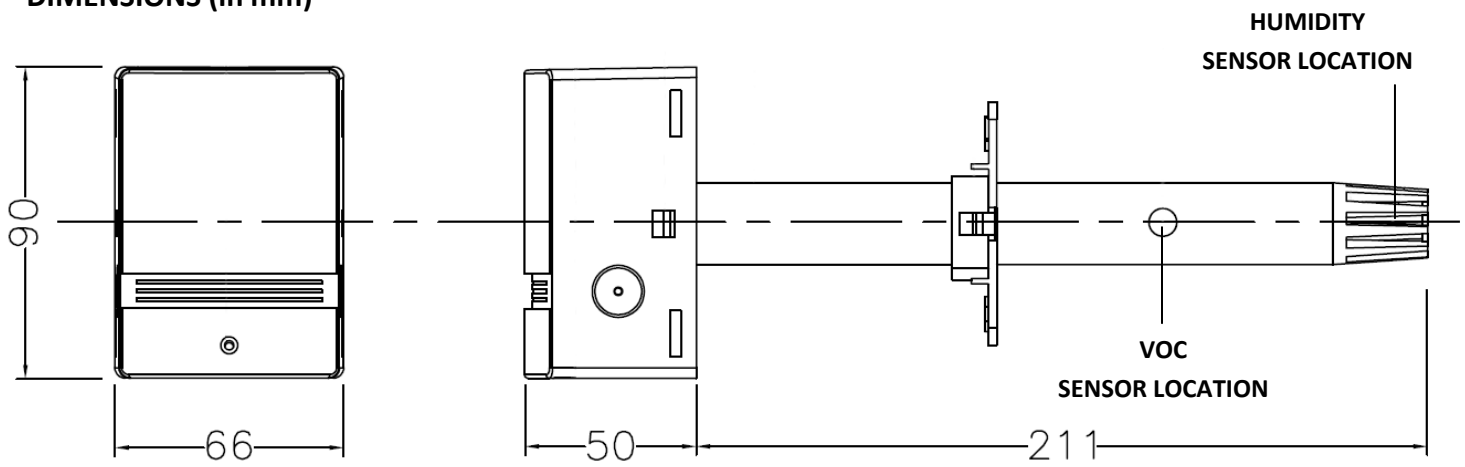
TVOC Output Signal:	0 to 10V Analog *(other outputs available on request)*
VOC Detection Range:	0 to 2000 ppm CO2 Equivalent Measurement
TVOC Range:	0 to 60000 ppb
VOC Accuracy:	15% of measured value
VOC Resolution:	0 ppb—2008 ppb: 1ppb 2008 ppb—11110 ppb: 6ppb 11110 ppb—60000 ppb: 32ppb

Humidity Sensor:

RH Output Signal:	0 to 10V Analog *(other outputs available on request)*
Supply Voltage:	17 to 35 VDC / 17 to 35 VAC
Voltage Output Current (RH):	10-12mA
Voltage Output Resistance (RH):	1 kOhm
Supply Current:	32-35mA
RH Long Term Stability:	Less than 0.25% per year
RH Repeatability:	0.8% RH @ average temp. 25°C / 77°F
RH Sensitivity:	0.1% RH
RH Accuracy:	2.5% 10-90% RH, 5% 0-100% RH
Operating Range:	-40 to 60°C / -40 to 140°F
RH Sensor Type:	Capacitive, non-condensing
RH Measurement Range:	0-100% RH
Filter:	Polyethylene Filter, replaceable

Dimensions:	40mm X 19mm
Short Circuit Det.	< 840 Ohm
Open Circuit Det.	> 1500 Ohm
Fault Current:	>22.5 mA

DIMENSIONS (in mm)



HOW TO BUILD A TASSERON HVAC DUCT VOC PART NUMBER:

Sample Part number (THVDSZ2C) — VOC/RH Duct Sensor with 0-10V outputs for VOC and RH

T	H	V	D	S	Z	2	C
TASSERON	**HVAC**	**SENSOR TYPE**	**APPLICATION**	**HOUSING**	**TEMP**	**RH ACCURACY**	**OUTPUT**
		V—VOC (0-2000ppm)	**D—Duct** R—Room	**S—Safe Box**	**Z—NO TEMP**	**2—2%** Z– NO RH	A— 4-20mA B—0-5V **C—0-10V** D—Modbus E—BACnet F—I2C