

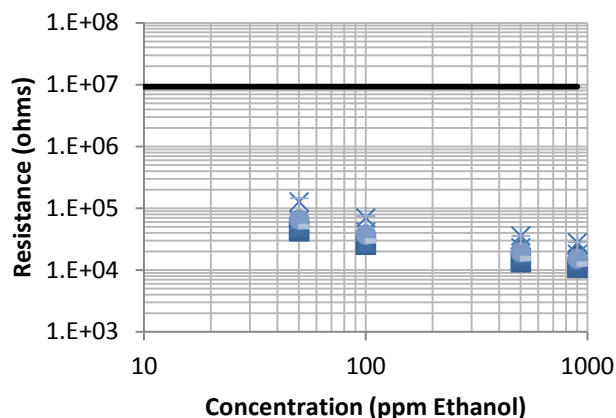
SENSOR FEATURES:

- New low power design: 40 mA @ 1 V
- Innovative chemiresistor technology
- Environmental temperature range of -40 to 60°C with appropriate heater control
- Thermistor heater allows active control of sensor temperature based on environmental temperature
- Environmental humidity range of 0 to 95% RH, non-condensing
- Sensor packaged on low profile TO-46 header

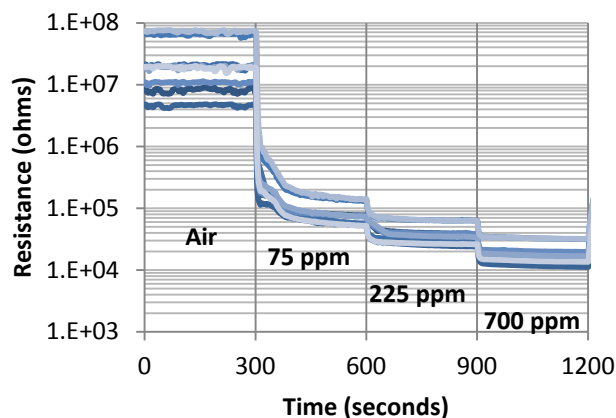


SENSOR RESPONSE CHARACTERISTICS:

The information below represents typical behavior for sensors operated in clean, dry gas.



Sensor Response Function: (Log) Sensor Resistance vs. (Log) ppm Ethanol



Sensor response to step change of Ethanol concentrations.

CROSS SENSITIVITY – ETHANOL EQUIVALENTS

Vapor	Concentration Ethanol	Vapor	Concentration Ethanol
Isobutylene- 100 ppm	200 ppm	NO ₂ - 5 ppm	Negative Response
CO- 70 ppm	25 ppm	Formaldehyde- 1.5 ppm	No Response
Hydrogen- 100 ppm	< 10 ppm	Methane- 1000 ppm	20 ppm

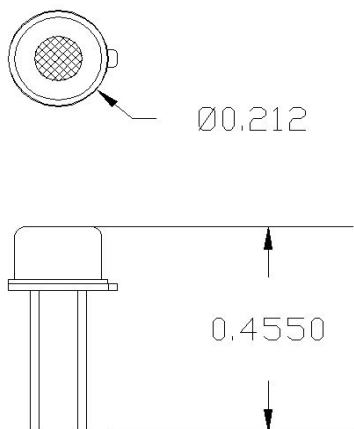
ELECTRICAL CHARACTERISTICS:

The properties below are typical for UltraKera™ TO VOC Sensors.

PROPERTY	SYMBOL	VALUE	REMARKS
Heater Power Consumption	P_H	40 mW	Continuous at $V_H = 1.0$
Heater Voltage	V_H	1.0 VDC	$T_{\text{sensor}} \sim 220^\circ\text{C}$, $R_H = 16 \Omega$
Heater Resistance	R_H	14 to 18 Ohms	At room temperature
Sensing Voltage	V_C	2.5 VDC	Typical
Typical Resistance in Air	R_a	200 k Ω / 10 M Ω *	Min/Max
Typical Resistance in 500 ppm Ethanol	$R_{1.0}$	1 k Ω / 200 k Ω *	Min/Max
Typical Sensitivity	R_a/R_{500}	10	Min
Repeatability		$\pm 5\%$ Full Scale/ $\pm 10\%$ Reading	Whichever is Greater

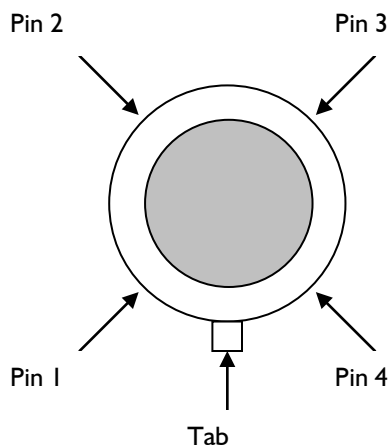
*Note that all measurements were in dry gas, at room temperature. Specifications are typical values based on preliminary data and are subject to change

SENSOR DIMENSIONS:



SENSOR PIN OUT:

Top view of sensor



- 1 - Heater +
- 2 - Sensor +
- 3 - Common
- 4 - No Connect