MikroKera 4L Hydrogen Sensor (P/N 724)

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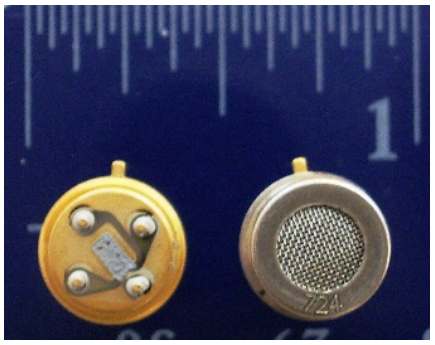
Longmont, CO 80503

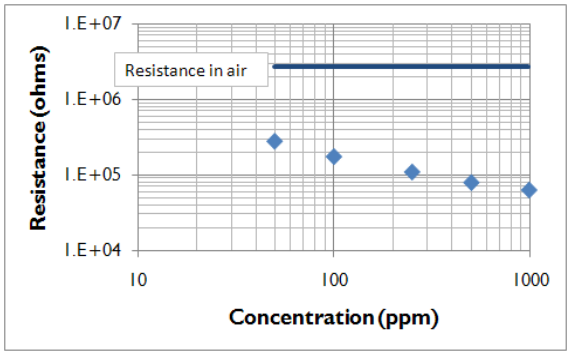


SENSOR FEATURES:

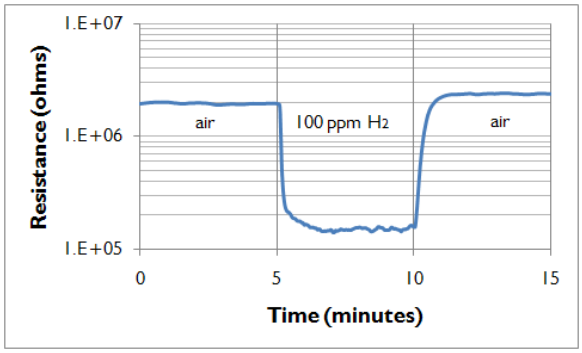
- High sensitivity to hydrogen
- Fast response time (T_{90} < 15 seconds at 100 ppm)
- Environmental temperature range of –20 to 50°C
- Thermistor heater allows active control of sensor temperature based on environmental temperature
- Environmental humidity range of 0 to 95% RH, non-condensing

SENSOR RESPONSE CHARACTERISTICS:

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



Sensor resistance versus hydrogen concentration.



Sensor response to 100 ppm H_2 in humid air. H_2 applied at 5 min and removed at 10 min.

CROSS SENSITIVITY – PPM H_2 EQUIVALENTS.

VAPOR	PPM H_2	VAPOR	PPM H_2
Methane – 1000 ppm	1	Nitrogen Dioxide – 5 ppm	negative response
Carbon Monoxide – 100 ppm	2	Chlorine – 1 ppm	0
Ethanol – 50 ppm	25	Sulfur Dioxide – 5 ppm	0
Hydrogen Sulfide – 15 ppm	70		

ELECTRICAL CHARACTERISTICS:

The properties below are typical for MikroKera 4L Hydrogen Sensors. Circuits are available that are preset to the appropriate values.

PROPERTY	SYMBOL	VALUE	REMARKS
Heater Power Consumption	P_H	~ 125 mW	Continuous at V_H = 1.45
Heater Voltage	V_H	1.45 VDC	T_{sensor} ~190°C
Heater Resistance	R_H	10Ω ± 1.0 Ω	At room temperature
Sensing Voltage	V_C	2.0 VDC	Recommended
Resistance in Air	R_a	500 kΩ/50 MΩ	Min/Max
Resistance in 500 ppm H_2	R_{500}	5 kΩ/500 kΩ	Min/Max
Sensitivity	R_a/R_{500}	50	Min

**Note that all measurements were made in dry gas at room temperature*

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- For information on warranty, please refer to Synkera Technologies, Inc. Standard Terms and Conditions.
- Information on this data sheet represents typical values from a number of Synkera sensors. Actual values from sensor to sensor can vary slightly.