

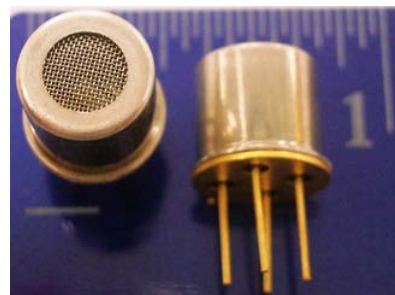


## MikroKera 4L Hydrogen Sulfide Sensor (P/N 727)

Synkera Technologies, Inc.  
2605 Trade Centre Ave., Ste. C  
Longmont, CO 80503

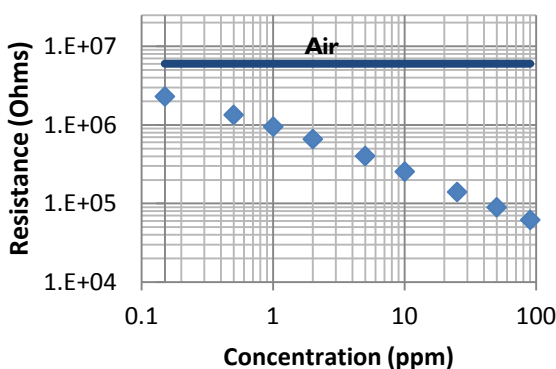
### SENSOR FEATURES

- Reliably detects  $H_2S$  at concentrations from 0.15 to > 100 ppm
- Rugged sensor operates at temperature and humidity extremes
- Fast response (<5 seconds) and complete recovery after  $H_2S$  exposure
- Sensor response is stable (does not go to sleep)
- Thermistor heater allows active control of sensor temperature based on environmental temperature

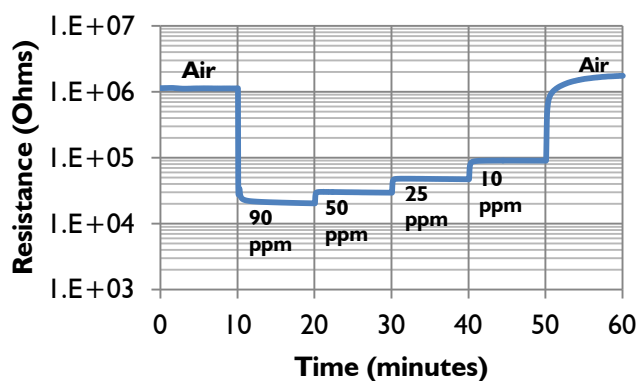


### SENSOR RESPONSE CHARACTERISTICS:

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



Sensor resistance versus  $H_2S$  concentration



Sensor response to  $H_2S$  - steps in 10 minute intervals

### Cross Sensitivity –PPM $H_2S$ Equivalents

| VAPOR              | PPM $H_2S$ | VAPOR                     | PPM $H_2S$        |
|--------------------|------------|---------------------------|-------------------|
| Methane – 1000 ppm | 2          | Sulfur Dioxide – 5 ppm    | < 1               |
| Ethanol 50 - ppm   | 7          | Carbon Monoxide – 100 ppm | 2                 |
| Hydrogen - 100 ppm | 4          | Nitrogen Dioxide – 5 ppm  | Negative Response |
| Chlorine – 15 ppm  | < 1        |                           |                   |

### ELECTRICAL CHARACTERISTICS

The electrical properties below are typical for Flammable Gas Sensors. If the actual values differ the customer will be notified with the shipment. Circuits are available that will be preset to the correct values.

| PROPERTY                    | SYMBOL       | VALUE                         | REMARKS                                    |
|-----------------------------|--------------|-------------------------------|--|
| Heater Power Consumption    | $P_H$        | ~ 225 mW                      | At $V_H = 2.2$ VDC                         |
| Heater Voltage              | $V_H$        | 2.2 VDC                       | $T_{\text{sensor}} \sim 300^\circ\text{C}$ |
| Heater Resistance           | $R_H$        | $10 \Omega \pm 1.0 \Omega$    | At room temperature                        |
| Sensing Voltage             | $V_C$        | 2.5 VDC                       | Recommended                                |
| Resistance in Air           | $R_a$        | 200 k $\Omega$ /20 M $\Omega$ | Min/Max                                    |
| Resistance in 50 ppm $H_2S$ | $R_{50}$     | 10 k $\Omega$ /1 M $\Omega$   | Min/Max                                    |
| Sensitivity                 | $R_a/R_{50}$ | 15                            | 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.