



## Hydrogen Sulfide Gas Sensor H2S/CG-5000-4E

H2S Gas Sensor in Compact Housing

### Applications

- Discontinuous Measurement
- Biogas Analyzer
- H2-Compensated H2S Measurement

### Measurement

|  |                             |
|--|-----------------------------|
| Operation Principle                        | 4-Electrode Electrochemical |
| Nominal Range                              | 0 - 5000 ppm                |
| Maximum Overload                           | 10000 ppm                   |
| Inboard Filter                             | -                           |
| Output Signal                              | 25 ± 6 nA/ppm               |
| Resolution (Electronics dependent)         | < 2 ppm                     |
| T90 Response Time                          | < 35 s                      |
| Typical Baseline Range (pure air, 20°C)    | -40 ppm to 40 ppm           |
| Maximum Zero Shift (+20°C to +40°C)        | N.D.                        |
| Repeatability                              | < 2 % of signal             |
| Output Linearity                           | Linear                      |
| Gain (Only applies to 4-Electrode sensors) | 0.5 - 1.8                   |

#### **Performance data recorded at 20 – 25 °C, 30 - 50% RH, 900 - 1100 mbar**

For further information about usage of Membrapor sensors, see application note [MEM1](#). The data contained in this document is for guidance only. Membrapor AG accepts no liability for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. Customers should test under their own conditions to ensure that the sensors are suitable for their own requirements.



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### Electrical

|                              |                  |
|------------------------------|------------------|
| Rec. Load Resistor           | 10 - 33 $\Omega$ |
| Bias (V_Sens-V_Ref)          | not recommended  |
| Conformity to RoHS directive | RoHS Compliance  |

### Environmental

|                         |                                |
|-------------------------|--------------------------------|
| Relative Humidity Range | 15 % to 90 % RH non-condensing |
| Temperature Range       | -40 °C to 50 °C                |
| Pressure Range          | Atmospheric $\pm$ 10%          |
| Pressure Coefficient    | N.D.                           |
| Humidity Effect         | None                           |

### Lifetime

|  |                                 |
|--|---------------------------------|
| Expected Operation Life                | 2 years in air                  |
| Expected Long Term Output Drift in air | < 2 % signal loss per month     |
| Filter Life                            |                                 |
| Storage Life                           | 6 months in container           |
| Rec. Storage Temperature               | 5°C - 20°C                      |
| Warranty Period                        | 12 months from date of dispatch |

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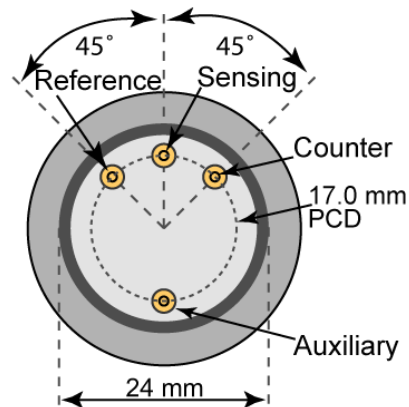
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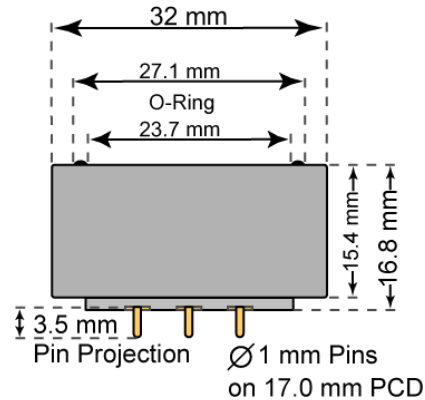
#### Compact-Size Outline Dimensions

BOTTOM VIEW



± 0.10 mm

SIDE VIEW



#### Mechanical

|                  |               |
|------------------|---------------|
| Weight           | 13 g          |
| Orientation      | Any           |
| Housing material | Polycarbonate |

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### Cross Sensitivity Data

The table below does not claim to be complete. Interfering gases should not be used for calibration. Please contact Memrapor AG for further support regarding cross sensitivities.

| Interfering Gas | Cross-Sens. [%] |
|-----------------|-----------------|
| CO              | < 5             |
| H <sub>2</sub>  | 0               |

### Important Application Notes

- The table contains the H<sub>2</sub> cross sensitivity after applying compensation.
- See MEM6 for detailed description of H<sub>2</sub> compensation.

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