

# MEMBRAPOR SPECIFICATION SHEET

## SiH<sub>4</sub>/C-50



### Silane Gas Sensor in Compact Housing

#### MEASUREMENT

|  |                             |
|--|-----------------------------|
| Operation Principle                        | 3-Electrode Electrochemical |
| Nominal Range                              | 0 – 50 ppm                  |
| Maximum Overload                           | N.D.                        |
| Inboard Filter                             | –                           |
| Output Signal                              | 1200 ± 400 nA/ppm           |
| Resolution<br>(Electronics dependent)      | < 0.2 ppm                   |
| T90 Response Time                          | < 60 sec                    |
| Typical Baseline Range<br>(pure air, 20°C) | 0 ppm to – 1 ppm            |
| Maximum Zero Shift<br>(+20°C to +40°C)     | N.D.                        |
| Repeatability                              | < 2 % of signal             |
| Output Linearity                           | Linear                      |
| Gain                                       | –                           |

#### ELECTRICAL

|   |                 |
|---|-----------------|
| Rec. Load Resistor                          | 10 Ohm          |
| Bias (V <sub>Sens</sub> -V <sub>Ref</sub> ) | not recommended |
| Conformity to RoHS directive                | RoHS Compliance |

#### ENVIRONMENTAL

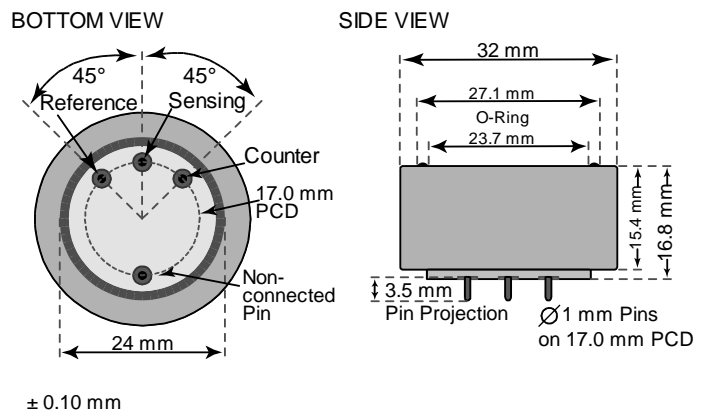
|                         |                                  |
|-------------------------|----------------------------------|
| Relative Humidity Range | 15 % to 90 % R.H. non-condensing |
| Temperature Range       | -20 °C to 50 °C                  |
| Pressure Range          | Atmospheric ± 10%                |
| Pressure Coefficient    | N.D.                             |
| Humidity Effect         | none                             |

#### LIFETIME

|   |                                 |
|---|---------------------------------|
| Expected Operation Life                   | 2 years in air                  |
| Expected Long Term Output<br>Drift in air | < 2 % 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 |

Performance data conditions: 20 °C, 50% RH, 1013 mbar

#### Compact-Size Outline Dimensions



#### MECHANICAL

|                      |      |
|----------------------|------|
| Weight               | 13 g |
| Position Sensitivity | None |

#### APPLICATIONS

Discontinuous Measurement  
Safety and Environmental Control

#### CROSS-SENSITIVITY DATA

The table below does not claim to be complete.

| Interfering Gas  | Conc.<br>ppm | Reading<br>ppm |
|------------------|--------------|----------------|
| CO               | 200          | 0              |
| H <sub>2</sub>   | 200          | 0              |
| SO <sub>2</sub>  | 5            | 1              |
| H <sub>2</sub> S | 5            | 8              |
| PH <sub>3</sub>  | 2            | 2              |

REV.: 04/2017

Phone: +41 43 311 72 00  
Fax: +41 43 311 72 01  
Email: info@membrapor.ch  
www.membrapor.ch

Page 1 of 2  
MEMBRAPOR AG  
Birkenweg 2  
CH-8304 Wallisellen  
Switzerland

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.

## SiH4/C-50

Silane Gas Sensor in Compact Housing



### TEMPERATURE DEPENDENCE

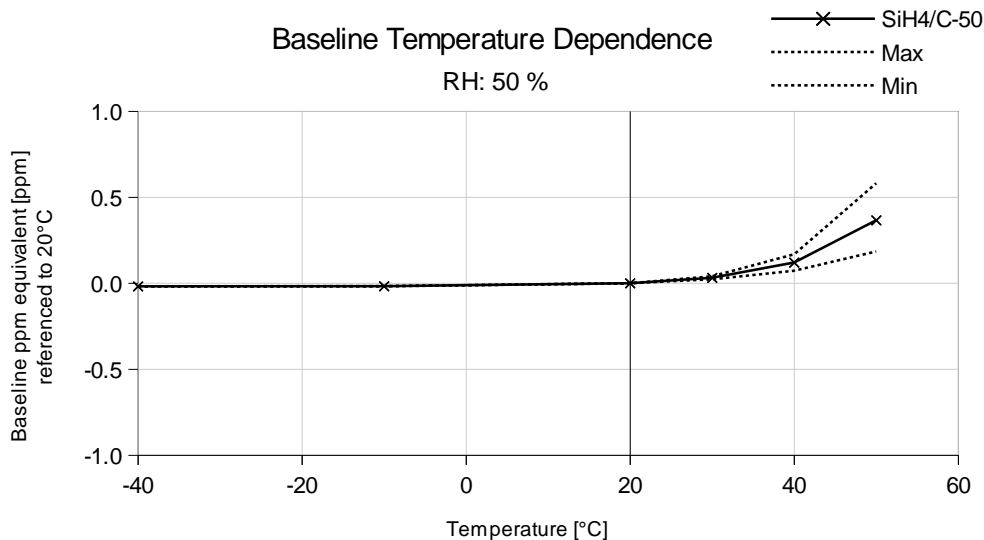


Figure 2: The shift in baseline shown in ppm referenced to 20 °C and a relative humidity of 50%.

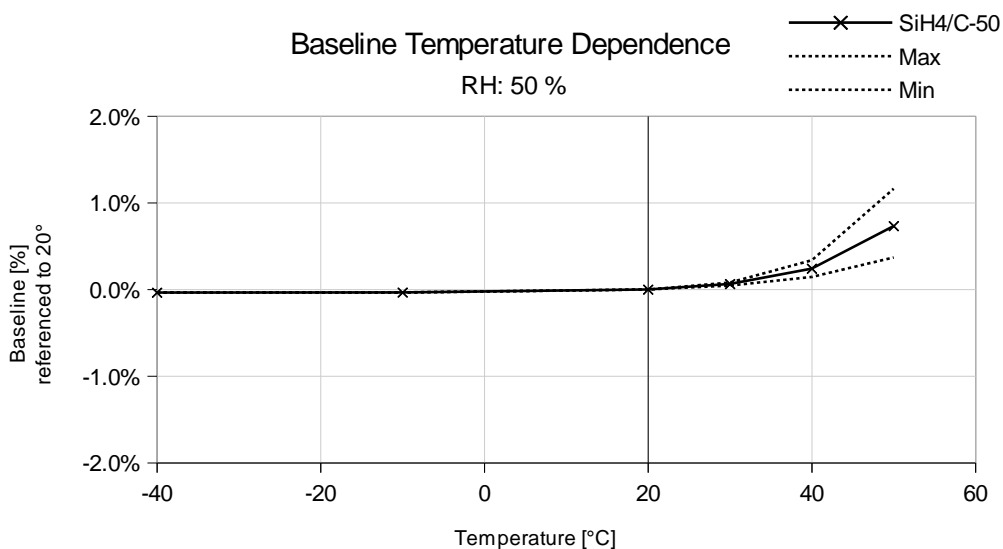


Figure 3: The shift in baseline expressed as percentage of the measurement range referenced to 20 °C and a R.H. of 50%.

REV.: 04/2017

Phone: +41 43 311 72 00

Fax: +41 43 311 72 01

Email: info@membrapor.ch

www.membrapor.ch

Page 2 of 2

MEMBRAPOR AG

Birkenweg 2

CH-8304 Wallisellen

Switzerland

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.