

## ETO/M-1000

Ethylene Oxide Gas Sensor in Mini Housing



### MEASUREMENT

|  |                             |
|--|-----------------------------|
| Operation Principle                        | 3-Electrode Electrochemical |
| Nominal Range                              | 0 – 1'000 ppm               |
| Maximum Overload                           | 2'000 ppm                   |
| Inboard Filter                             | –                           |
| Output Signal                              | 25 ± 6 nA/ppm               |
| Resolution<br>(Electronics dependent)      | < 8 ppm                     |
| T90 Response Time                          | < 140 sec                   |
| Typical Baseline Range<br>(pure air, 20°C) | 0 ppm to 70 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_Sens-V_Ref)          | +300 mV         |
| Conformity to RoHS directive | RoHS Compliance |

### ENVIRONMENTAL

|                         |                                  |
|-------------------------|----------------------------------|
| Relative Humidity Range | 15 % to 90 % R.H. non-condensing |
| Temperature Range       | -40 °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 |

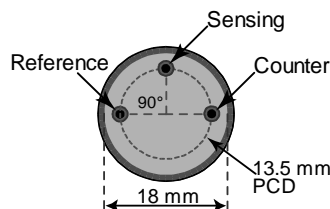
Performance data conditions: 20 °C, 50% RH, 1013 mbar

### IMPORTANT NOTE

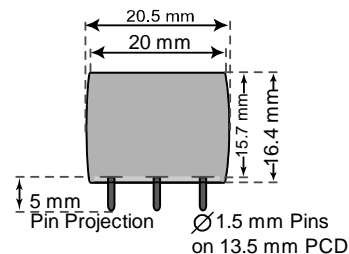
1) Fresh sensors with bias need 24-72 h for stabilization of the baseline

### Miniature-Size Outline Dimensions

BOTTOM VIEW



SIDE VIEW



± 0.10 mm

### MECHANICAL

|                      |       |
|----------------------|-------|
| Weight               | 5.5 g |
| Position Sensitivity | None  |

### APPLICATIONS

Sterilization Processes  
Safety and Environmental Control

### CROSS-SENSITIVITY DATA

The table below does not claim to be complete. Interfering gases should not be used for calibration.

| Interfering Gas               | Conc.<br>ppm | Reading<br>ppm |
|-------------------------------|--------------|----------------|
| CO                            | 100          | 45             |
| Ethanol                       | 30           | 21             |
| Formic Acid                   | 42           | 42 ± 3         |
| Aromatic Hydrocarbons         | 30           | < 15           |
| C <sub>2</sub> H <sub>4</sub> | 100          | 100 ± 25       |

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Phone: +41 43 311 72 00

Fax: +41 43 311 72 01

Email: info@membrapor.ch

www.membrapor.ch

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MEMBRAPOR AG

Birkenweg 2

CH-8304 Wallisellen

Switzerland