# SPECIFICATION SHEET for AMMONIA SENSOR with FAST RESPONSE TYPE NH3/MR-100

# PERFORMANCE CHARACTERISTICS

| Nominal Range                     | 0 – 100 ppm               |
|-----------------------------------|---------------------------|
| Maximum Overload                  | 200 ppm                   |
| Expected Operation Life           | 2 years in air            |
| Output Signal                     | $110 \pm 30$ nA/ppm       |
| Resolution                        | 1 ppm                     |
| Temperature Range                 | - 10 °C to 40 °C          |
| Pressure Range                    | Atmospheric <sup>1)</sup> |
| Pressure Coefficient              | No data                   |
| T <sub>90</sub> Response Time     | < 40 sec                  |
| Relative Humidity Range           | 15 % to 90 % R.H.non-     |
|                                   | condensing                |
| Baseline                          | 0 ppm ± 3 ppm             |
| Maximum Zero Shift (+20℃ to       | -8 ppm                    |
| +40℃)                             |                           |
| Typical Long Term Output Drift    | < 5% per 6 months         |
| Recommended Load Resistor         | 10 Ohm                    |
| D' M                              | Not allowed               |
| Bias Voltage                      | Not allowed               |
| Bias Voltage<br>Repeatability     | < 3 % of signal           |
| Repeatability<br>Output Linearity |                           |
| Repeatability                     | < 3 % of signal           |

<sup>1)</sup> no data for deviations

**CROSS-SENSITIVITY DATA** 

<sup>2)</sup> abrupt changes in rel. humidity causes a short term transient signal

| Interfering Gas               | Concentration | Reading |
|-------------------------------|---------------|---------|
|                               |               |         |
| CO                            | 300 ppm       | 0 ppm   |
| H <sub>2</sub>                | 200 ppm       | 0 ppm   |
| SO <sub>2</sub> <sup>3)</sup> | 20 ppm        | -7 ppm  |
| $H_2S^{-3)}$                  | 20 ppm        | 7 ppm   |
| NO <sup>3)</sup>              | 20 ppm        | -1 ppm  |
| NO <sub>2</sub> <sup>3)</sup> | 20 ppm        | -20 ppm |
| Cl <sub>2</sub>               | 20 ppm        | -55 ppm |
| CO2                           | 2 %           | 0 ppm   |
| SiH <sub>4</sub>              | 10 ppm        | 0 ppm   |

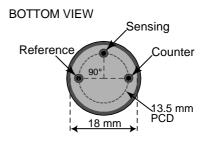
<sup>3)</sup> Long term exposures and high concentrations may affect the performance characteristics

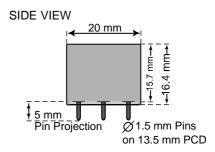
Performance data conditions: 20 °C, 50% RH and 1013 mbar

### PHYSICAL CHARACTERISTICS

| Weight               | ~ 5.4 g             |
|----------------------|---------------------|
| Position Sensitivity | None                |
| Storage Life         | Six months in       |
|                      | container           |
| Recommended Storage  | 5 °C – 20 °C        |
| Temperature          |                     |
| Warranty Period      | 12 months from date |
|                      | of dispatch         |

#### **Miniature-Size Outline Dimensions**





# APPLICATIONS

Leak Detection Safety and Environmental Control For Portable Gas Detectors

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