

Product Specification of:

## NO<sub>2</sub> - Industrial Sensor / Type I-51



### .: KEY FEATURE .:

**Amperometric gas sensor with potentiostat, low interferences to other gases and a fast response time.**

*All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa.*

|   |   |                               |
|---|---|-------------------------------|
| <b>Operating Principle:</b>               | 3-electrode potentiostatic cell with potentiostat |                               |
| <b>Electrical Connector:</b>              | 4-pin Molex®                                      |                               |
| <b>Sensor Lifetime:</b>                   | ~ 2 years   |                               |
| <b>Gas Connector:</b>                     | M16 x 1 thread                                    |                               |
| <b>Measurement Range:</b>                 | 0 to 500 ppm                                      |                               |
| <b>Maximum Overload:</b>                  | up to 2,000 ppm                                   |                               |
| <b>Sensitivity:</b>                       | - 150 to - 250 nA/ppm                             |                               |
| <b>Response Time <math>t_{90}</math>:</b> | < 15 s  |                               |
| <b>Drift:</b>                             | < 10 % signal/year                                |                               |
| <b>Zero Offset Current:</b>               | < ± 1 ppm   |                               |
| <b>Operating Temperature:</b>             | 0 to 50 °C  |                               |
| <b>Pressure Range:</b>                    | 750 to 1250 hPa                                   |                               |
| <b>Humidity Range:</b>                    | 30 to 98 % RH                                     |                               |
| <b>Interferences:</b>                     | CO <sub>2</sub> : none                            | SO <sub>2</sub> : < 5 nA/ppm  |
|   | CO: < 1 nA/ppm                                    | H <sub>2</sub> S: < 30 nA/ppm |
|   | H <sub>2</sub> : < 1 nA/ppm                       | NO: < 2 nA/ppm                |
|   | O <sub>2</sub> : none                             |                               |
| <b>Weight:</b>                            | approximately 24 g                                |                               |
| <b>Material in Contact with Media:</b>    | PP, PPS, PTFE, stainless steel                    |                               |



### .: STORAGE CONDITIONS .:

|                           |                         |
|---------------------------|-------------------------|
| <b>Temperature Range:</b> | recommended: 5 to 30 °C |
|                           | maximum: -20 to 50 °C   |
| <b>Ambient Pressure:</b>  | 600 to 1250 hPa         |
| <b>Humidity:</b>          | 10 to 98 % RH           |
| <b>Shelf Life:</b>        | < 3 months recommended  |

### .: RELATED PRODUCTS .:

| Product                       | Part-No. | Housing Colour |
|-------------------------------|----------|----------------|
| NO <sub>2</sub> - Sensor I-51 | 48 00 33 | grey           |

*This data sheet is subject to change without prior notice. [I-51-Rev\_022012.doc]*

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