Midas[®] sensor cartridge specifications

Oxygen (O₂) MIDAS-S-O2X

| Gas Measured | Oxygen (O ₂) | | |
|--|---|--|--|
| Cartridge Part Number | MIDAS-S-02X 1 year standard warranty MIDAS-E-02X 2 year extended warranty | | |
| Sensor Technology | 3 electrode electrochemical cell | | |
| Measuring Range (ppm) | 0 ₂ 0 – 25% v/v | | |
| Minimum Alarm 1 Set Point | 5% v/v | | |
| Lower Detectable Limit (LDL) | 5% v/v | | |
| Repeatability | $< \pm 0.04\%$ v/v | | |
| Linearity | $<\pm$ 0.2% v/v | | |
| Response Time t _{62.5} | < 10 seconds | | |
| Sensor Cartridge Life Expectancy | ≥ 24 months under typical application conditions | | |
| Operating Temperature Effect of Temperature Zero Sensitivity | 0°C to +40°C (32°F to 104°F) $< \pm 0.3\%$ of measured value / °C | | |
| Operating Humidity (continuous) Effect of Humidity Zero Sensitivity | 15 – 90% rH Follows actual concentration of 0, present (eg. 20.9% v/v @ 30% rH, 20.04% v/v @ 99% rH / 40°C) | | |
| Operating Pressure | 70 – 110kPa | | |
| Effect of Position | No effect in typical application | | |
| Long Term Drift Zero Sensitivity | No drift $< \pm 2.5\%$ of measured value / year | | |
| Calibration Gas | Oxygen (0 ₂) | | |
| Challenge Gas (Bump Test) | Air mixture | | |
| Warm Up Time | < 30 minutes | | |
| Storage Temperature | +5°C to +25°C (+41°F to +77°F) | | |
| | | | |

The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed

Find out more

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Please Note:

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Cross Sensitivities

Each Midas[®] sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species).

| Gas / Vapor | Chemical Formula | Concentration applied (ppm) | Reading (% 0 ₂) |
|------------------|---------------------|--------------------------------|--|
| Carbon Dioxide | CO ⁵ | | Enhance O_2 reading by 0.3% / % CO_2 |
| Hydrogen | H_2 | 100% v/v | -9 |
| Methane | CH_4 | 100% v/v | No response |
| Nitrogen Dioxide | NO ₂ | 25ppm in air | No response |

*Oxygen detection products must only be used to detect oxygen depletion in air