Honeywell

# Midas® SENSOR CARTRIDGE SPECIFICATIONS

## Oxygen ($O_2$)
## MIDAS-L-O2S

| Gas Measured | Oxygen ($O_2$) |
|---|---|
| **Cartridge Part Number** | MIDAS-L-O2S 3 year warranty |
| **Sensor Technology** | 3 electrode electrochemical cell |
| **Measuring Range (ppm)** | $O_2$ 0 – 25% v/v |
| **Minimum Alarm 1 Set Point** | 5% v/v |
| **Repeatability** | < ± 0.1% v/v |
| **Linearity** | < ± 0.2% v/v |
| **Response Time $t_{62.5}$** | < 10 seconds |
| **Sensor Cartridge Life Expectancy** | ⩾36 months under typical application conditions |
| **Operating Temperature** | 0°C to +40°C (32°F to 104°F) |
| **Effect of Temperature** | |
| Zero | |
| Sensitivity | < ± 0.3% of measured value / °C |
| **Operating Humidity (continuous)** | 15 – 90% rH |
| **Effect of Humidity** | |
| Zero | Follows actual concentration of $O_2$ present |
| Sensitivity | (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 | No drift |
| Sensitivity | <5% signal loss over operating life |
| **Calibration Gas** | Oxygen ($O_2$) |
| **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

**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 (% $O_2$) |
|---|---|---|---|
| Carbon Dioxide | $CO_2$ | | 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 |

**Find out more**

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