



Technical Memo

PureAire 0-25% Sensor Usage.

The Fujikura FCX-UC Oxygen Sensor is a durable, limiting current-based Yttria-Stabilized Zirconia (YSZ) sensor engineering for precise oxygen level detection within the range of 0-25%. It offers certified calibration accuracy of $\pm 0.2\%$, a swift response time ($T_{90} < 30$ seconds), and acceptable operating conditions of -10 to 50°C and pressures up to 70 psi.

Key Features:

- Measurement range: 0-25.0% Oxygen
- Certified calibration accuracy: $\pm 0.2\%$
- Response time: < 30 seconds
- Operating conditions: -10 and 50°C , pressures up to 70 psi
- Drift: $< 0.5\%$ over 20,000 hours without calibration
- Non-depleting YSZ sensor

The Fujikura FCX-UC Oxygen Sensor is designed for long-term deployment and is capable of accurate oxygen readings for more than 10 years, provided it operates under recommended environmental conditions with low contamination. However, to maintain optimal accuracy, we recommend calibrating the corresponding monitor every 6 months.

It's worth noting that the sensor demonstrates minimal drift ($< 0.5\%$) over 20,000 hours of continuous operation without calibration, indicating its ability to deliver reliable readings over an extended period. Despite this, adherence to the advised calibration schedule will enhance the sensor's performance and prolong its effective operational life.

Bear in mind that while the YSZ sensor is non-depleting, sensors should not be interchanged between monitors as this can severely, and irreversibly impact the sensor's functionality and overall system accuracy.

In summary, the Fujikura FCX-UC Oxygen Sensor on the PureAire TX-1100 platform offers a robust and long-term solution for precise oxygen monitoring in a variety of applications. Its recommended usage period and performance can significantly extend with correct maintenance and regular calibration, providing a cost-effective solution for long-term oxygen monitoring needs.

For more information, please contact PureAire Engineering, or find us on our website at www.pureairemonitoring.com.

Sincerely,

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