Line-Powered Oxygen Analyzer Quick Start Guide

First span calibration and measurement

PST-QSG-3003-1.1

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Welcome to the Quick Start Guide for first span calibration and first measurement using your line-powered analyzer.

Here, you will find information covering **gas connection in section A**, and **first span calibration in section B**.
Please read the safety information below.

Start here

⚠️ Safety information

- Avoid covering the vent when gas is flowing through the analyzer.

- To remove moisture and particulates, open the sensor housing and either blow on the sensing surface or gently wipe the surface with a damp cloth. Ensure ppm sensors have minimal exposure to air.

- You must connect the analog signal output to a recording device in accordance with local safety directives.

- If your analyzer is an AIS or IS model, ensure power to the alarm contacts is 24 V DC (nominal).

⚠️ The first calibration is of utmost importance as all subsequent calibrations are based on the initial one.

NOTE: We recommend you use certified span gas for calibration to ensure the best measurement readings.

The GPR-series of line-powered oxygen analyzers is compliant with the following safety approvals and directives:

CE ⬡Ex RECOGNIZED COMPONENT ETL Intertek 5013266 Conforms to UL. Std. 61010-1 Certified to CSA Std.C22.2 No.61010-1 UKCA MET

User Interface (UI)

Button	Function
☰	Menu
⏎	Enter
↓	Previous (decrement)
↑	Next (increment)

A. Gas connection

NOTE: The calibration span gas should be 50...80% of the required measurement range or one range above. E.g. For a 1 ppm measurement, span gas should be 5...8 ppm or 50...80 ppm.

1. Connect your span gas line to the inlet on the flow meter (refer to Figure 4 on page 4).

NOTE: If you have an analyzer with a sample system connect your span gas and sample gas lines to the appropriate ports. Once connected, move the 3-way valve to the desired position for Span or Process gas.

2. Ensure the flow rate is at 1...2 SCFH and allow the span gas to flow for 2...3 minutes. This will purge the system.

3. Continue to **section B**.

B. First span calibration

The GPR-1800 and GPR-2800 are delivered without the sensor installed to preserve its operational life. To install the sensor:

1. Apply power to your analyzer (refer to Figure 3 on page 4).

2. Using the two latches, open the front window.

3. To open the sensor housing, loosen the star wheel then disengage the top sensor housing by turning it 90° counter-clockwise. Refer to 'b' in Figure 2 on page 4.

4. Remove the sensor from its packaging, remove the shorting flags and **immediately** place in the bottom sensor housing (refer to Figure 1 on page 4 for guidance).

5. Now re-connect the top sensor housing and secure using the star wheel.

6. Use the two latches to close the front window on your analyzer.

7. Now press ☰ and use ⬇ and ⬆ to navigate to **Calibration** > **Span Calibrate**.

8. Use ⬇ and ⬆ to enter the span gas value. Ensure the reading has stabilized before continuing.

NOTE: When a Span or Zero Cal starts, only "Abort" with ⬇ is shown until the reading is stable, then "Accept" with ⬆ appears.

9. Use ⬆ to **Accept**, and ⬇ to **Abort**. If you selected **Accept**, your analyzer is now calibrated.

C. Gas disconnection

1. Stop the flow of gas.

2. Disconnect your gas line from the port on the analyzer.

3. Immediately reconnect process gas.

NOTE: Exposing ppm sensor to ambient air for extended periods may cause irreversible damage to sensor.

D. Making your first measurement

To make your first measurement, connect your process gas lines by following the procedure in **section A**.
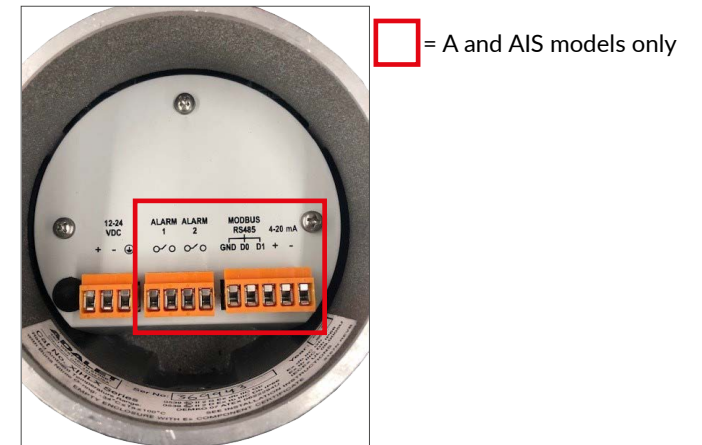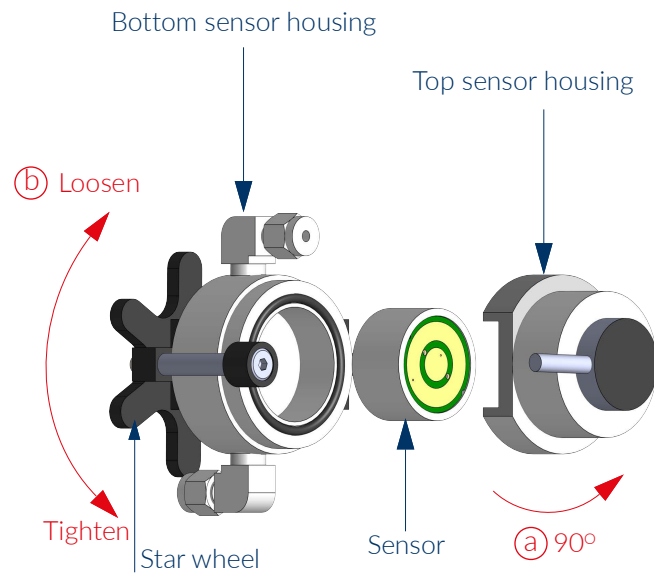
E. Figures

Figure 1 - Aligning your sensor

Bottom sensor housing

Top sensor housing

ⓑ Loosen

Tighten

Star wheel

Sensor

ⓐ 90º

Figure 2 - Installing and uninstalling your sensor

= A and AIS models only

Figure 3 - Wiring your analyzer

Figure 4 - Gas inlet (analyzer's right side elevation)

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F. Useful links

Scan below for more information.

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