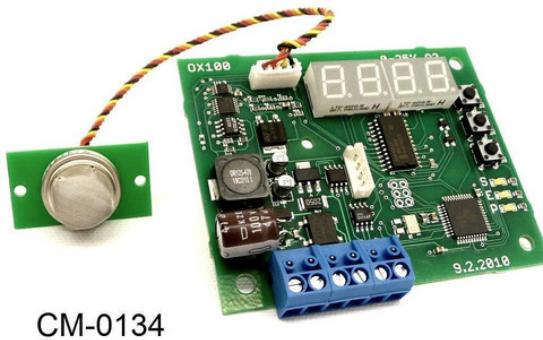


# Datasheet: TR250Z Oxygen Sensor



The TR250Z is a long life 0-25% or 0.1-95% oxygen level transmitter that provides multiple analog linear outputs of O<sub>2</sub> concentrations. It is designed to be rugged, maintenance-free and can be calibrated in normal air of any known oxygen concentration.

## FEATURES:

- Can be calibrated in normal air or any known O<sub>2</sub> concentration
- Non-consumptive technology
- Automatic or manual calibration
- Linear 0-10V, 4-20mA or RS485-MODBUS output of measured oxygen content
- High accuracy

## O<sub>2</sub> Measurement

|                         |                                       |
|-------------------------|---------------------------------------|
| Measurement Range ..... | 0 – 25% or 0.1-95%                    |
| Sensing Method .....    | Zirconium dioxide (ZrO <sub>2</sub> ) |
| Sampling Method .....   | Diffusion                             |
| Response Time .....     | 4 sec max diffusion time              |
| Sensitivity .....       | ± 20 ppm ± 1 % of measured value      |
| Accuracy .....          | ± 0.5 % (2% full scale)               |
| Pressure Range .....    | 2 to 3000 mbar                        |

## General Performance

|                                   |  |
|-----------------------------------|--|
| Operating Temperature Range ..... | -10 to +70 °C  |
| Storage Temperature Range .....   | -10 to +70 °C  |
| Operating Humidity Range .....    | 0 to 95% RH (non-condensing)                           |
| Sensor Life Expectancy .....      | > 10 years   |
| Maintenance Interval .....        | no maintenance required                                |
| Self-Diagnostics .....            | complete function check of the sensor module           |
| Warm-up Time .....                | ≤ 100 sec  |
| Operating Environment .....       | Laboratory, residential, commercial, industrial spaces |

## Electrical/Mechanical

|                           |                          |
|---------------------------|--------------------------|
| Power Input.....          | 24VDC ±10%               |
| Current Consumption ..... | 600 mA @ 24VDC           |
| Dimensions .....          | 3.5 x 2.75 x 0.50 inches |

## Communication

|               |                                  |
|---------------|----------------------------------|
| Analog .....  | Linear 0 to 10V<br>Linear 4-20mA |
| Digital ..... | RS485-MODBUS                     |

## Options

|                    |  |
|--------------------|--|
| Tube Cap.....      | Allows transmitter to be built into a closed-loop gas system |
| Mount Shield ..... | Heavy duty sensor protection with threaded assembly.         |

**CM-0134 25% O<sub>2</sub> Transmitter**

**CM-0134-WT 25% O<sub>2</sub> Transmitter with Tube Sampling**

**CM-0150 25% O<sub>2</sub> with Mount Shield**

**CM-0160 95% O<sub>2</sub> Transmitter**

**CM-0160-WT 95% O<sub>2</sub> Transmitter with Tube Sampling**

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