

# Oxygen Meter

MO-200 Series



[www.apogeeinstruments.com](http://www.apogeeinstruments.com)

435.792.4700



- Designed to measure 5 – 100% Oxygen in soil, growth media, air, or in-line tubing (flow-through applications)
- Handheld meter displays and stores measurements
- Performance proven in the field
- Four year warranty

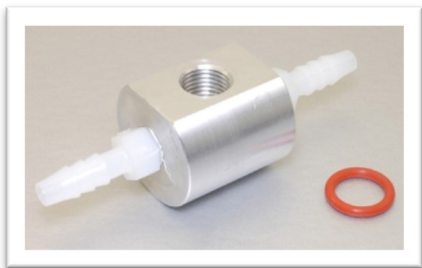
The MO-200 is designed to measure 5 – 100% oxygen while the handheld meter displays and stores measurements. The wide measurement range allows it to be used for applications either in the soil or in the lab with the available diffusion or flow-through heads. The sensor is calibrated to ambient air making it very easy to calibrate. An aluminum housing that is filled with epoxy allows the sensor to withstand harsh conditions.

### Viewable on meter display & downloadable to a PC:

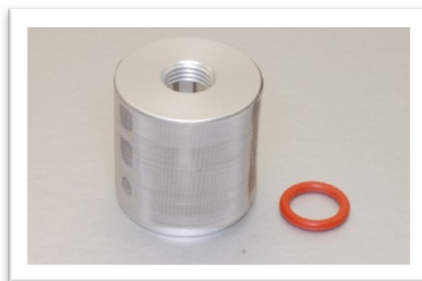
(SMPL) 99 Sample Measurements

(LOG) 99 Log Measurements

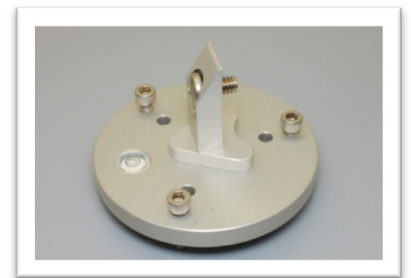
Downloadable only: (LOG) 99 Daily Average Measurements



AO-002 Flow through Head



AO-001 Diffusion Head



AL-210 :Meter Leveling Plate

# SPECIFICATIONS

**Measurement Range:** 5 to 100 % O<sub>2</sub>

**Measurement Repeatability:** ± 0.1 % at 20.9 % O<sub>2</sub>

**Non-linearity:** < 1 %

**Oxygen Consumption Rate:** 2.2 μmol O<sub>2</sub> per day at 20.9 % O<sub>2</sub> and 23 C (galvanic cell sensors consume O<sub>2</sub> in a chemical reaction with the electrolyte, which produces an electrical current)

**Response Time:** 14 s (time required to read 90 % of saturated response)

**Operating Environment:** 0 to 50 C  
< 90 % non-condensing relative humidity up to 30 C  
< 70 % non-condensing relative humidity from 30 to 50 C  
60 to 140 kPa

Note: Electrolyte will freeze at temperatures lower than -20 C. This will not damage the sensor, but the sensor must be at a temperature of -20 C or greater in order to make measurements.

**Meter Dimensions:** 12.6 cm length, 7.0 cm width, 2.4 cm height

**Sensor Dimensions:** 3.2 cm diameter, 6.8 cm length

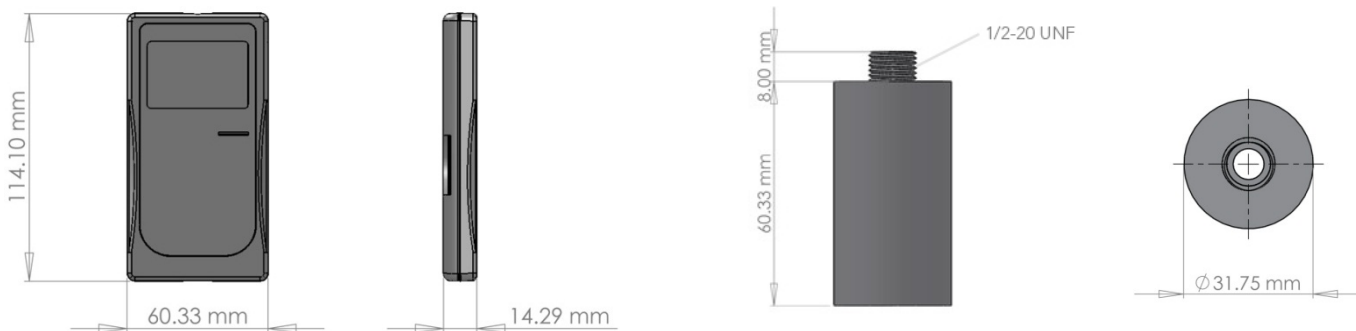
**Diffusion Head (Accessory):** 3.5 cm diameter, 3.5 cm length, 125 mesh screen

**Flow Through Head (Accessory):** 3.2 cm diameter, 9.1 cm length, ¼ inch barbed nylon connectors

**Mass:** 210 g

**Cable:** 2 m of two conductor, shielded, twisted-pair wire  
Additional cable available  
Santoprene rubber jacket (high water resistance, high UV stability, flexibility in cold conditions)

**Influence from Various Gases:** Meters are unaffected by CO, CO<sub>2</sub>, NO, NO<sub>2</sub>, H<sub>2</sub>S, H<sub>2</sub>, and CH<sub>4</sub>. There is a small effect (approximately 1 %) from NH<sub>3</sub>, HCl, and C<sub>6</sub>H<sub>6</sub> (benzene). Sensors are sensitive to SO<sub>2</sub> (signal responds to SO<sub>2</sub> in a similar fashion to O<sub>2</sub>). Sensors can be damaged by O<sub>3</sub>.



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