

MIJ-03 OXYGEN SENSOR MANUAL

WARNING!

The MIJ-03 Oxygen Sensor is self-powered and does not require a power supply.

Applying a voltage to the sensor will damage the sensor and void warranty.

Do not cross the wires and avoid the wires contacting each other.

WIRING

Black – Ground

White/Black – Data Signal

CALIBRATION

The MIJ-03 requires a two-point calibration.

The 0% O₂ value is 0 mV.

To find the 20.9% O₂ value, use a voltmeter or multimeter to test the voltage output from the MIJ-03 wires. Apply the black test probe from the voltmeter to the black wire; and apply the red test probe from the voltmeter to the white/black wire. A millivolt (mV) reading will appear on the LCD of the voltmeter and this is the 20.9% O₂ value. The mV reading will vary from sensor to sensor but should be in the range 45 to 65 mV.

The calibration curve is linear between O₂ and mV: $y = ax$; where y is O₂; x is mV and a is the slope of the calibration curve.

INSTALLATION

The MIJ-03 sensor works via diffusion of oxygen from the atmosphere to the sensor. Therefore, the sensor can be installed in any orientation.

However, the most common orientation, particularly in soils is vertical with the sensor well against the soil surface.

The MIJ-03 can be installed to any soil depth. Auger a hole to the required depth, install the sensor with the sensor well facing downwards, then back fill the hole.

The maximum water depth rating for the MIJ-03 is 5m depth.

MAINTENANCE

Reinstallation, cleaning and checking sensor calibration is recommended every 12 months.

In certain environments, biofouling of the sensor gas porous membrane may occur.

Clean the surface of the MIJ-03 with a non-abrasive material in soapy water.

WARRANTY

The MIJ-03 Oxygen Sensor, and associated equipment, has a one-year warranty on parts and labour. Your warranty is automatically validated upon receipt of the equipment.

Note: The one-year service plan activates when Edaphic Scientific Pty Ltd ships the instrument and not at the time of purchase.



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SELLER'S LIABILITY

Seller warrants new equipment of its own manufacture against defective workmanship and materials for a period of one year from the date of receipt of equipment.

Note: We do not consider the results of ordinary wear and tear, neglect, misuse, or accident as defects.

The Seller's liability for defective parts shall in no event exceed the furnishing of replacement parts "freight on board" the factory where originally manufactured. Material and equipment covered hereby which is not manufactured by Seller shall be covered only by the warranty of its manufacturer. Seller shall not be liable to Buyer for loss, damage or injuries to persons (including death), or to property or things of whatsoever kind (including, but not without limitation, loss of anticipated profits), occasioned by or arising out of the installation, operation, use, misuse, non-use, repair, or replacement of said material and equipment, or out of the use of any method or process for which the same may be employed. The use of this equipment constitutes Buyer's acceptance of the terms set forth in this warranty.

There are no understandings, representations, or warranties of any kind, express, implied, statutory or otherwise (including, but without limitation, the implied warranties of merchantability and fitness for a particular purpose), not expressly set forth herein.

HOW TO CITE IN A PUBLICATION

MIJ-03 Oxygen Sensor (Japan Environmental Measurement Co., Ltd., Takatai, Fukuoka City, Japan).

FURTHER ASSISTANCE

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