

PSR-11-39-MD Oxygen Sensor (R-22D) | Dive Gear Express®

Ships in 24 hours or less

- Buy 3 for \$72.00 [CA \$101.08] each and **save 4%**
- Buy 4 for \$71.00 [CA \$99.68] each and **save 5%**
- Buy 5 for \$70.00 [CA \$98.27] each and **save 7%**

NOTE: Because of our large unit volumes on this very popular sensor, we are able to offer bulk pricing discounts for either 3-Pack, 4-Pack or 5-Pack purchases of this specific model.

Factory fresh, our oxygen sensors are never more than four months old when we ship to you. Due to the unique nature of the product, this diving grade oxygen sensor is NON-RETURNABLE. Your complete satisfaction is our goal, so please consider carefully before purchase.

The Analytical Industries (AI) PSR-11-39-MD, with a 3-pin Molex connector, is compatible with the Teledyne R-22D sensor and Maxtec MAX-305F sensor.

The Analytical brand PSR-11-39-MD is used in the Dive Rite O2ptima, Poseidon Se7en & Discovery VI, Hollis Prism2 & Explorer MK2, KISS Classic/GEM and upgraded KISS Sport, Hammerhead, Liberty, SubGravity and many other brands of rebreathers. The PSR-11-39-MD is NOT compatible with the ISC Megalodon or the Mares rEvo.

Features

- Accuracy within +/- 2% of full scale
- Response time is 6 seconds
- Conformal coating
- Temperature compensated
- Hydrophobic membrane

AI brand diving sensors ship with the documentation of a final pressure test for each sensor. The sensor is tested at approximately one ATA in air and 100% oxygen, then tested again at 1.8 ATA in oxygen, and the millivolt readings are recorded for all measurements. The results document that the cell is within specifications for current and linearity up to a PO₂ exceeding 1.6 ATA. The dated test results are included in the package with each individual sensor.

Oxygen sensors are one of the very few items on our website that are NOT returnable, because we can't know with absolute certainty how they were handled once delivered. Additional shipping and handling of the return can also degrade performance. They are critical to safety in rebreather diving, and our customers have a reasonable expectation of receiving as factory fresh a product as possible from Dive Gear Express. Your complete satisfaction is our goal, so please consider

carefully before purchase.

Usage Note: The usual mV range for R-22D type cells is from 8 mV to 14 mV in air, i.e. 21% oxygen at 1 Atmosphere Absolute, with 10 mV being typical for a sensor that has been in service. At 14.0 mV the theoretical value in 100% oxygen and 1.0 ATA would be 66.92 mV. Some rebreather electronics will refuse to calibrate at the upper end of the range (i.e. high 60's) because oxygen sensors very rarely put out that much current by the time they reach the hands of the consumer and are put in to service. However, our sensors are fresh enough that it can happen, particularly if they were just removed from the sealed package and the temperature or barometric pressure that day is high. If so, allowing the sensor to acclimate in air or Nitrox overnight will usually resolve the high reading calibration issue. It's also true that rebreathers will refuse to calibrate at the lower end of the range. If so, check the connection by moving the sensor to another position in the sensor array and if the low reading calibration issue persists then replace the sensor.

- 10.0 mV = theoretical mV at PO₂= 1.0 ATA is 47.80
- 11.0 mV = theoretical mV at PO₂= 1.0 ATA is 52.58
- 12.0 mV = theoretical mV at PO₂= 1.0 ATA is 57.36
- 13.0 mV = theoretical mV at PO₂= 1.0 ATA is 62.14
- 14.0 mV = theoretical mV at PO₂= 1.0 ATA is 66.92

Mixing Brands or Ages of Oxygen Sensors

Many electronically controlled rebreathers use an array of several sensors to alert the diver to the possibility of a failing sensor. The rebreather electronics will generate a warning indication when the sensors do not agree with each other. This is an important safety feature enabled by the multi-sensor array and the diver must respond immediately to sensor warnings.

If the sensor array contains a mix of brands or ages of sensors you may experience unexpected behavior of the sensor array that could result in misleading warnings. For example, installing a single new sensor in an array with much older sensors may cause sensor warnings simply because the new sensor responds faster than the older sensors. There are numerous other circumstances in which a mixture of brands or ages in an oxygen sensor array can cause otherwise acceptable sensors to generate a warning, solely due to ordinary differences between the sensors. You might see transient sensor warnings while the different sensors catch up to each other and auto calibrating rebreathers might even fail to calibrate in such situations.

Rebreather manufacturers each have specific recommendations regarding sensor replacement strategies for their rebreathers and we advise following their recommendations in order to avoid misleading warnings. If you are considering switching brands of sensors, it's tempting to want to just 'try one out' rather than replace the whole array, but **we do not recommend mixing brands or ages of sensors.**

