



# PORTABLE OXYGEN ANALYZER

## ***NITROGEN PURITY CHECK***

The Nitrogen Generator Air Separation Membrane separates nitrogen gas from the other gaseous constituents of air; principally oxygen which is 20.9% of the atmosphere, the balance being nitrogen and very small amounts of other gases.

For purposes of measuring the percentage of nitrogen in a generator gas sample, the percentage of nitrogen includes the trace quantities of other inert gases such as neon, argon and helium.

Nitrogen purity is expressed as the difference between the percentage of O<sub>2</sub> as measured and 100% as shown below:

<u>INDICATOR READING %O<sub>2</sub></u>	<u>PERCENT N<sub>2</sub> PURITY</u>
4.0	96.0
3.0	97.0
2.0	98.0
1.0	99.0
0.9	99.1
0.5	99.5

Nitrogen purity measurement is accomplished by taking a sample of the nitrogen gas as it exits the membrane from the Nitrogen Sample Port located on the control panel of the nitrogen generator. The sample flow rate is controlled by an orifice in the sampling line to ensure that the meter oxygen sensing cell has the proper time to evaluate the sample.

A cost-effective, reliable means of monitoring multiple nitrogen generators with a single meter that is easily maintained by cognizant unit inspection personnel. Avoids meter exposure to ambient temperature and operational extremes.

**PART NUMBER: 701509**



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Part Number 701509 Portable Oxygen Analyzer, shown below, is a modified Teledyne Model BRC battery operated oxygen meter with a special three scale indicator. A special sampling hose adapts to the sampling port located on the control panel of CVI/CVB nitrogen generators.

Scale Range	Application
High I 0-25% O <sub>2</sub>	Use for meter calibration @ 20.9% O <sub>2</sub>
MED /0-5% O <sub>2</sub>	Purity Range 97-98% O <sub>2</sub>
Low 10-1% O <sub>2</sub>	High Purity range 99% and above

