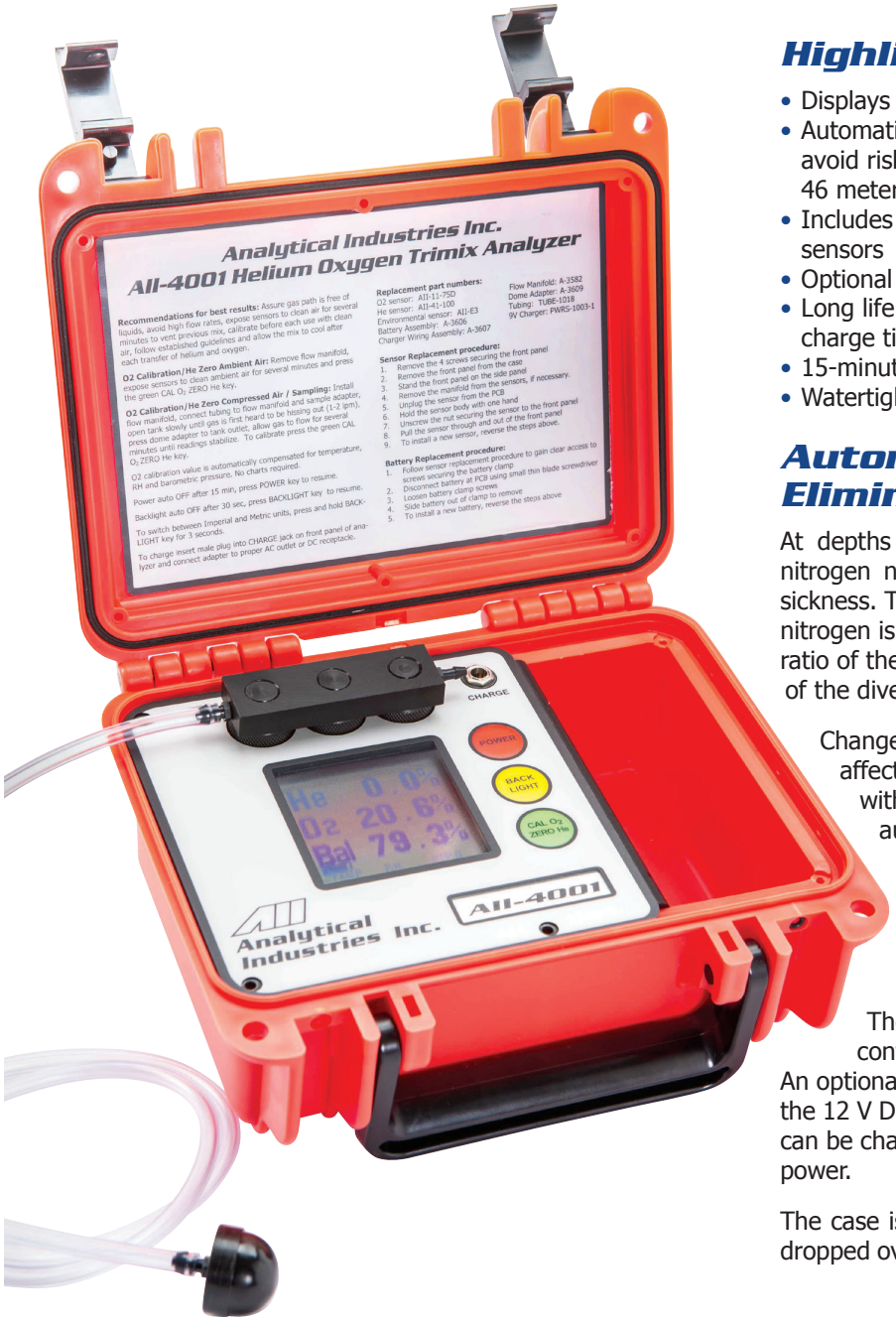
Analytical Industries Inc

Portable Helium Oxygen Analyzer

Trimix 4001

A portable helium oxygen analyzer designed to ensure the correct mix of helium, oxygen and nitrogen for technical diving. It analyzes gas mixes, automatically correcting for environmental conditions and eliminating the risk of errors from manual calculations.



Highlights

- Displays O_2, He and balance gas (0-100%)
- Automatically adjusts for environmental conditions to avoid risk of nitrogen narcosis during dives down to 46 meters
- Includes temperature, barometric pressure and RH sensors
- Optional integral pump
- Long life battery with 16 hours of use, with two-hour charge time
- 15-minute auto-off feature to save battery
- Watertight, IP65 enclosure

Automatic Correction - Eliminating operator error

At depths down to 46 meters, divers are at risk of nitrogen narcosis, oxygen toxicity and decompression sickness. To avoid this, a mixture of helium, oxygen and nitrogen is used for breathing gas instead of air and the ratio of these gases is calculated precisely for the depth of the dive.

Changes in temperature, pressure and humidity affect the results of calibrations and measurements, with a possible error of up to 6.7%. The AII-4001 automatically compensates for environmental changes, with built-in pressure, temperature and RH sensors, eliminating the risk of operator error.

Designed for field use

The AII-4001 will operate for 16 hours of continuous use, and fully charges in two hours. An optional adapter is available to charge the unit using the 12 V DC power outlet from a car or boat, so the unit can be charged even if there is no easy access to mains power.

The case is watertight and with the lid closed will float dropped overboard, and being red will be easily spotted.

Technical Specifications

Measurement range	0-100% Helium, 0-100% Oxygen
Accuracy	±2% of range at constant conditions
Response time	T90 < 10 seconds
Sensor model	He: AII-41-100, O_2: AII-11-75D
Sensor life	He: 10 years, O_2: 60 months in air
Calibration interval	Prior to use with ambient air or a known concentration of oxygen
Inlet pressure	< 5 psig with 1-2 SCFH or open tank valve slowly until hissing sound Ambient pressure (extract sample with optional integral pump)
Display	Backlight LCD 6.4 x 6.4cm (2.5 x 2.5”)
Dimensions:	221 x 190.5 x 96.5mm (8.7 x 7.5 x 3.8")
Ingress protection:	Watertight case (when closed) IP65
Compensation	Temperature, barometric pressure, relative humidity
Storage temperature	0°C to 50°C (32°F to 112°F) 50°C intermittently
Operating temperature	0°C to 45°C (32°F to 113°F)
Power	Rechargeable battery, 9 V DC from 110/220 V AC (can charge battery in 2 hours). Optional 12 V DC car charger.

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