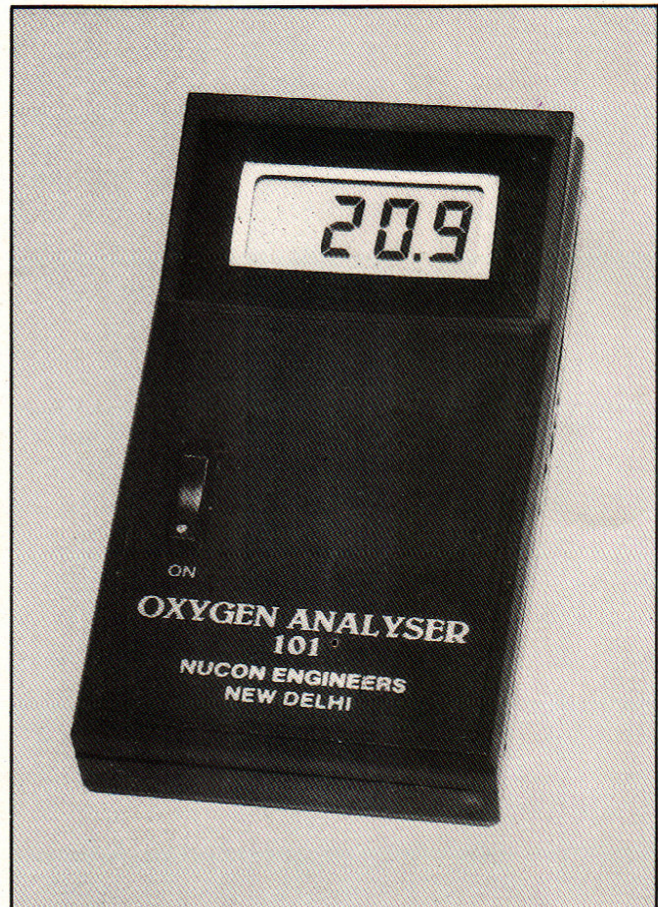


OXYGEN ANALYSER SYSTEM

The NUCON SERIES 100 portable Oxygen Analysers are designed for accurate and reliable measurement of Oxygen in Air, Nitrogen, Argon, Hydrogen etc. These are based on state of art Galvanic Oxygen Sensors, and provide fast response. They require no periodic maintenance like replacing electrodes or electrolyte and can be calibrated using ambient air or standard calibration samples. A digital display provides direct percentage output readout. The power Source is a 9V battery. Use of C MOS Integrated Circuits ensures low power consumption for long battery life.

Model 101 is an Oxygen Monitor for general applications. Model 102 additionally has low Oxygen set alarm facility which is usually preset to 19.0% intended for personal safety usage and warns if Oxygen level falls below acceptable to human system.



SPECIAL FEATURES

- ▶ Pocket size, Light weight
- ▶ Fast Response
- ▶ Easy to read Display
- ▶ Low Battery Indicator
- ▶ Audible/Visual Alarm on 102
- ▶ Accurate, disposable galvanic Sensor

SPECIFICATIONS

- ▶ Range : 00.0 – 25.0% with least count 0.1%
- ▶ Accuracy : $\pm 2\%$ full scale
- ▶ Response Time : 90% in less than 15 Seconds
- ▶ Display : LCD
- ▶ Sensor Type : Galvanic
- ▶ Power Source : One 9V battery
- ▶ Alarm System : Audio/Visual
- ▶ Weight : 400 gms. app.

APPLICATIONS

- ▶ Gas purity check
- ▶ Combustion Efficiency Studies.
- ▶ Glove Boxes
- ▶ Cryogenics.
- ▶ Microbiology
- ▶ Metallurgy
- ▶ Chemical Engineering
- ▶ Plastic manufacturing
- ▶ Food and beverage packing
- ▶ Bio Technology
- ▶ Personal Safety
- ▶ Mines
- ▶ Medical-Respiratory Studies
- ▶ Anaesthetic monitoring
- ▶ Baby incubators

TYPICAL APPLICATIONS

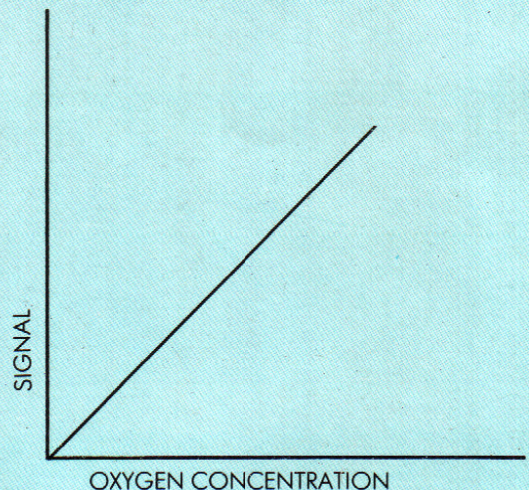
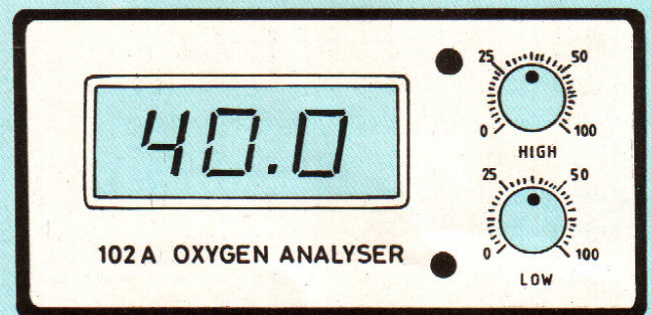
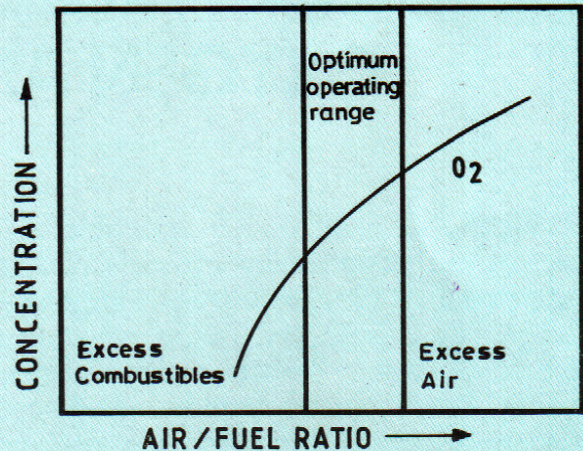
In **Boilers** and **Firebox** the amount of Oxygen (excess air) in flue gases is significant in defining the status of a combustion process.

- ▶ Too much Oxygen (excess air) will lower the efficiency of the process by absorbing heat and carrying it out to the stack to waste. Fuel would have to be added to maintain the heat level, increasing the cost.
- ▶ Insufficient Oxygen can result in incomplete combustion. Combustible gases will build producing a potential hazard which could result in an explosion.
- ▶ Low values of Oxygen at the correct level will give optimum combustion efficiency. Under these conditions, there is little heat loss, lowering fuel requirements. Savings on Fuel can add up to many thousands of rupees per month.

Model 102 A is a panel mounting version specially developed for the **Baby Incubator and Anaesthetic Monitoring usages**. It has digital monitoring of Oxygen and both HIGH and LOW level settings on the front panel. If the Oxygen level gets lower than the low setting or higher than the High setting, an appropriate LED comes on as a visual warning and a buzzer comes on as an audio warning. A switch is provided to isolate buzzer if audio disturbance is not required. The unit operates on 220 V A.C. and has a standby battery of 9 Volt to which it automatically switches in the event of mains power failure.

Principle

The Galvanic Oxygen Cell produces a signal proportional to the Oxygen concentration.



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