

## PERCENT OXYGEN ANALYSER

NUCON Series 4000 Oxygen Analysers cover the range .01% to 100% and provide continuous analysis of oxygen in industrial gas streams. These are Panel Mounted instruments; with optional back stand can also be used for Bench Top applications. The transducer is sealed electro chemical fuel cell that generates signal in direct linear proportion to the oxygen concentration in the sample stream. It requires no periodic maintenance like replacing electrodes or electrolytes and can be calibrated using ambient air or standard samples. The output is available on a digital readout with a resolution of 0.1% or 0.01% depending upon model. Recorder terminals are provided on back panel.



Series 4000 is available in two measuring ranges and each range has option of two flow configurations. Model 4000 and 4406 cover the range 30.0%. Models 4440 and 4446 cover the range 0-100.0% and are recommended where high percentage is to be monitored. Models 4400 and 4440 are simple flow inlet instruments useful for low pressure flows. However where sample is available from pressurised sources and other special features are required, models 4406 and 4446 are recommended; these have, in addition, flow regulation, flow reading (rotameter) and Oxygen Cell Isolation valves provided in the flow circuit for the transducer. Model 4400A has built-in sensor in diffusion mode for atmospheric monitoring; where Remote Diffusion Sampling is required Model 4404 is recommended. All Models have alarm set facility available on a ten turn direct reading dial and the output is a one pole two way relay with potential free NO, C, NC contacts brought out on the back panel.

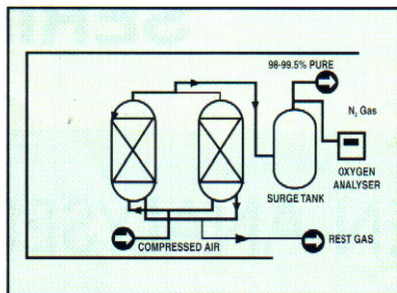
### APPLICATIONS:

- |                                 |                             |
|---------------------------------|-----------------------------|
| ● Gas Purity Check              | ● Chemical Engineering      |
| ● Combustion Efficiency Studies | ● Plastic Manufacturing     |
| ● Glove Boxes                   | ● Food and Beverage Packing |
| ● Cryogenics                    | ● Bio Technology            |
| ● Microbiology                  | ● Electronics               |
| ● Metallurgy                    | ● Flue Gas Analysis         |

# TYPICAL APPLICATIONS

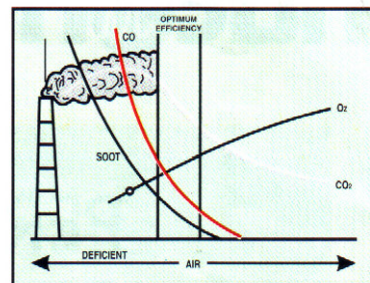
## BOILERS/ FIRE-BOX

The amount of oxygen (excess air) in flue gases is significant in defining the status of a combustion process.



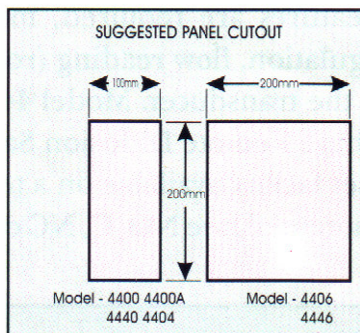
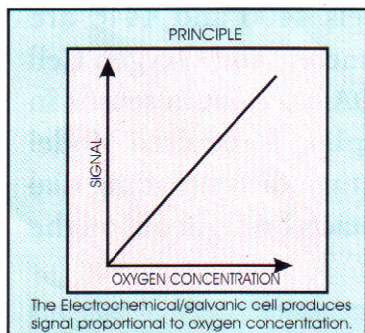
## PSA N2 GENERATORS

They could malfunction due to dusting of Carbon Molecular Sieves, leakage in changeover valves or due to the problems in DEOXO Reactor. To determine product gas purity it is advisable to install on line oxygen analyser in the product line.



## SPECIAL FEATURES

- Range** : **MODEL 4400, 4404** : 0-30.0%, Resolution : 0.1%  
 : **MODEL 4406** : Selectable 0-30.0% and 0.19.99%  
 : **MODEL 4440 & 4446** : 0-100.0%, Resolution 0.1%  
 (It is recommended for continuous use in the range 0 to 97% and intermittant use for > 97%)
- Display** : Digital
- Alarm** : Front panel setting. Output relay with potential free contacts NO, C, NC on the back panel.
- Output** : 0-IV DC standard : 4 to 20 mA optional
- Response Time** : 90% within 25 secs. for 0-30.0% range  
 : 90% within 50 secs, for 0-100.0% range
- Power** : **220 Volt A.C.** **110 Volt A.C.** Optional
- Sample Inlet** : 1/8" tube connection with swagelock type fittings.:  
 1/4" tube connection Kim type optional.
- Sample Gas Pressure** : Flow 200 to 1000 ml/min, from low pressure source upto 1 psi for **MODELS 4400 and 4440.** Connect through appropriate reduction valve if connected to pressurised source.  
 Pressure 0.1 to 10.0 kg/cm sq. for **MODELS 4406 and 4446.** Flow controls built-in.
- Dimen** : W98 H198 D 305 mm for **MODELS 4400, 4404.**  
 W198 H198 D 305 mm for **MODELS 4406 and 4446.**



Manufactured By:

## NUCON ENGINEERS

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# SERIES 4000 PERCENT OXYGEN ANALYSER

MODEL: 4486 Oxygen Analyser is the Paramagnetic Detector Version of the NUCON Series 4000 Percent Oxygen Analysers.

Paramagnetic Detector is based on the unique property of Oxygen that it is Paramagnetic in nature. It is a non depleting sensor-requires no periodic changes.

The features are:

- \* Specific to Oxygen
- \* Miniature in size-big on performance
- \* Very competitively priced
- \* Extremely Fast Response
- \* Long life and reliability
- \* No Consumable gases or Chemicals
- \* Well proven paramagnetic principle
- \* Flexible mounting configurations

## SPECIFICATIONS:

RANGE	:	0 to 100.0% Oxygen
RESOLUTION	:	0.1%
DISPLAY	:	Digital
OUTPUT	:	0 to 1 V DC or 4 to 20 mADC
ALARM	:	Over entire range provided. Alarm visual LED Indication and Relay Trip No, C, NC provided.

Flow Controls, Flow Indications provided in an integral configuration for ON LINE continuous analysis. Gas Inlet and Output are 1/8" Swagelok Ports.

## APPLICATIONS :

- \* Gas Plants
- \* Physiological Work / Sports Medicine
- \* Glove Boxes
- \* Metallurgy
- \* Ventilation System
- \* Gas Purity Check
- \* Anaesthesia
- \* Gas Blending
- \* Fruit Storage
- \* Process Industry

