



## Cooling & Heating



Online oxygen monitoring unit

*Enables efficiency improvement in direct fired combustion equipment*

### Leanox

Leanox is a Zirconia based, in situ flue gas analyzer that measures and monitors oxygen and combustion efficiency in any direct fired equipment. The probes are designed to be mounted permanently in the flue, to measure oxygen concentration and flue gas temperature. Also, the design of the sampling probe allows the flue gas sample to continuously pass across the oxygen detector, without the use of a pump.

COMMITTED TO DELIVER INNOVATIVE ENERGY SOLUTIONS

### Oxygen monitoring

Theoretically, the calculated amount of air required to burn a given quantity of fuel is referred to as Stoichiometric air. But, in actual practice, combustion equipment is always designed taking into account a certain percentage of excess air, that is more than the stoichiometric value, to ensure complete combustion.

The oxygen percentage is a direct measure of the proportion of excess air. When this excess air percentage is different from what is desired, it affects equipment performance or efficiency. The more the supply of excess air, more is the loss of heat from the stack. On the other hand, lesser amount of excess air can lead to incomplete combustion, soot formation and more. Thus, controlling excess air can lead to substantial improvement in combustion efficiency. This makes oxygen monitoring a necessity for optimum fuel utilization.

### Parameters displayed by Leanox

1. Oxygen concentration (%)
2. Stack temperature (°C)
3. Carbon Dioxide concentration (%)
4. Combustion efficiency (calculated) (%)

### Technical specifications

<b>Power Supply</b>	220 - 240 V AC, 50-60 Hz
<b>Ingress Protection</b>	IP 54
<b>Ambient Operating Condition</b>	0-50 C
<b>Display</b>	4 digit LED, character height 14.2 mm
<b>Range</b>	0-20.9%
<b>Resolution</b>	0.1%
<b>Accuracy</b>	+/- 0.3% O <sub>2</sub>
<b>Analog Output</b>	2 (4-20mA)
<b>Mounting</b>	Wall Mounted / Panel Mounted (Optional w/o IP 54)

### Features

- Well proven and reliable Zirconia based oxygen sensor - ensures long life
- Can be used as a combustion efficiency monitor
- Two 4- 20mA analog outputs available for retransmission
- Easy installation procedure
- Factory calibrated & Manufactured by a world renowned co.
- Delivered as a complete package, along with accessories and cables

### Application

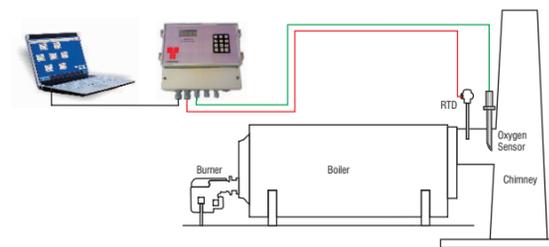
- Oil fired/ Gas fired boilers, heaters & hot water generators
- Selected solid fuel fired boilers & heaters

### Benefits

"Only what we can monitor, we can save". Eg. With reduction of 5% O<sub>2</sub>, the efficiency can be improved to the tune of approx 2.5%.

### Ordering Information

- For wall mounted, please mention "Leanox-A"
- For Panel mounted, please mention "Leanox-S"



For more information, please get in touch with your nearest Thermax Representative. You can also mail us at [info.c&hservices@thermaxindia.com](mailto:info.c&hservices@thermaxindia.com)

In view of our constant endeavour to improve the quality of our products, we reserve the right to alter or change specifications without prior notice. All photographs shown in this publication are representative in purpose, and to be used for reference only. For actual details and specifications, please refer to Thermax offer document.



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