COMBUSTION CONTROL OXYGEN ANALYZER

Why required? In a conventional boiler, there is no proper ratio maintained of Oxygen and Fuel to achieved required Heat generation. If Oxygen is not set in proper percentage of fuel then losses of heat and fuel. Let's see how, if More Oxygen is given than un-used Oxygen came with high temperature, means loss of fuel. And if less Oxygen is given than some part of fuel is un-burnt, means loss of fuel . So overall we found that, a perfect ratio of Oxygen and Fuel is required for proper combustion of fuel and maximum Boiler efficiency.

How used in Boiler for maximum efficiency ? - The Oxygen Sensor is installed at immediate after the combustion chamber and gives the signals to Control unit about Qty of Oxygen. And this control unit is maintaining the speed of ID and FD fan for proper combustion in combustion chamber as per the pre set % value of Oxygen.

Features:-

- High accuracy linear output
- Configurable outputs:
- 4-20mA and 0-10VDC or RS232 comms interface
- Selectable output measurement ranges: Standard ranges of 0-25% O2 and 0-100% O2 or fully adjustable via RS232 when configured in 0-100% O2 mode
- Externally triggered automatic or manual calibration
- Can be calibrated in normal air (20.7% O2) or in any other known O2 concentration
- Cycling 3.3VDC logic output allows direct monitoring of the O2 sensor pump cycle for diagnostic purposes
- Selectable output filtering allows adaptive, fast and dynamic or slow and stable output
- Reliable and repeatable measurements
- Robust design
- Quick and easy to install
- Simple to use

Sensor Specifications

- Maximum ratings
- Supply voltage 24VDC ± 10%
- Current consumption 500mA max @ 24VDC
- 4-20mA Load 100^{0} to 600^{0} Temperature limits (electronics enclosure)
- Storage -10C^{0} to 85C^{0}
- Operating -10C^{0} to 85C^{0}
- Temperature limits
  (permissible gas temperature at sensor tip)
- Operating (Standard Temp) -100^{0} to 250^{0} C
  (High Temp) -100 to 400^{0}C
- Gas flow rate 0 to 10 m/s
- Weight < 450g
- Sealing Rating IP65

PERFORMANCE CHARACTERISTICS

Characteristics	Min.	Type	Max.	Unit
Output inactive start up delay (heater warm up)		60		s
Initial warm up time (till stable output)	5	10		min
Measuring ranges 25% Configuration 100% Configuration	0.1 (1)		25 / 100	% O_2
Accuracy After Calibration (2) (3)	0.1 (1)		1	% O_2
Repeatability After Calibration (2)			0.5	% O_2
0-10 VDC Output Resolution			0.01	V
4-20mA Output Resolution			0.01	mA
RS232 Output Resolution			0.01	% O2
Reaction time (adaptive output filtering in normal air)				s

Benefits:-

- Up to 3.5% fuel saving
- Up to 20% of Power saving in ID and FD Fan
- Reduced Co2 emissions
- Optimization of fuel to air ratio
- Improved Boiler efficiency

Innovative
ENERPRO PVT. LTD.

Head Office : H-2, Swamisharan Complex, Ramwadi Bus Stop Isanpur, A'bad-382443. Gujarat, INDIA.
Mo.: 98241 45754 M. : 9227845754, Tel: 079-25324883
Factory : 15,16, Ambica Industrial Estate, Nr. Vatva-Narol Over Bridge, Vatva, Ahmedabad. Gujarat, INDIA. Tel : 079-25893901
Email : info@ienerpro.com I Website : www.ienerpro.com