Walsn Oxygen Analyser [OAM-800 & OAM-800-R]

Overview

The OAM series are ideal for measuring the continuously oxygen concentration in flue gases of boilers and furnaces. The OAM-800 is the integrated stand-alone oxygen analyser in which the zirconium oxide cell is placed directly in the stream of the products of combustion. The OAM-800-R is designed for remote control. The integrated or remote analyser is reliable for oxygen measurement and features high accuracy and low maintenance.

Product Features

- Accurate and reliable measurement, measurment accuracy within 1% range.
- Zirconium cell diagnosis function, which is able to check Zirconium cell operation status, as well as prompt
- The Zirconum cell boasts a nanoscale coating technology, and platinum welding process to ensure an air tight seal, durable working life and high measurement accuracy
- Field repalcement, easy daily maintanence
- Able to offer CRTube wear resistant & anti-corrosion protection services, extend the working life

OAM-800 OAM-800-R

Specifications

Measuring range	0~25%VOL.O_2	Zirconia oxide sensor	Suitable for all normal positive and negative flue pressures
Accuracy	±1% of full scale	Zero calibration gas	1%O_2 (Background gas :N_2)
Repeatability	±0.5% of full scale analogue outputs	Range calibration gas	8%O_2 (Background gas: N_2) or Air
Response time	T_0 < 3S,T_{90} <10S	Gas fl ow	300ml/min (0.64ft^3/hr)
Measuring method	Zirconia oxide sensor	Opearting Temperature	-20 ~ +70°C (-4 ~ 158°F)
Probe Material	316L Stainless Steel	Gas Temperature	20 ~ 600°C
IP level	IP65/NMEA4	Power Supply	100 ~ 240VAC, 50 ~60Hz
Parameters	O_2 concentration	Damping	1 ~ 100, optional
	Calibration gas	Serial Output	RS485 Modbus protocol
	Sensor tempurature	Fault Indication	LED indication and error codes
	Fault messages	Calibration	Optional track or hold
Analogue Outputs	Single channel isolated 0~10mA, 0~20mA, 2~20mA, 4~20mA, which can be selected through the menu.		
Probe Length/Weight	0.5m, 6.6Kg; 1.0m, 8.3Kg; 1.2m, 9.1Kg; 1.5m, 13.0Kg; 2.0m, 13.9Kg; 2.5m, 15.8Kg; 3.0m, 16.7Kg		

Principle

Walsn's OAM-800 and OAM-800-R oxygen analyser units boast a stable secure zirconia sensor, which consists of zirconium dioxide (ZrO_2), and a surface that is coated with a porous plantinum electrode layer. It utilizes a unique platinum welding process to obtain the junction of electrode.

Once consistancy has been achieved,the detected gas enters the inner side tube of the zirconium oxide sensor. At the same time, a sample of the reference gas (Air) enters through the outer side of the sensor.The zirconium oxide sensor will then measure each sample for a potential oxygen concentration difference.

The oxygen concentration reading corresponds with the sensor's temperature and detected gas concentration. Calculations are based on the Nernst Equation.