



Main Features

- Continuous measurement of flue gas.
- Micro processor controlled.
- Full diagnostics.
- Low maintenance.
- Low cost installation.
- Local display for automatic calibration.
- Six 4-20mA analogue output signals.

O₂, CO₂, CO, NO, NO₂ or SO₂ Continuous Emissions Analyser

The Autoflame EGA is a well proven flue gas analyser package designed for the boiler and process plant market. Units have been installed worldwide and the product has been adopted by many of the leading burner/boiler manufacturers. Installation is simplified with the use of simple plug in connectors.

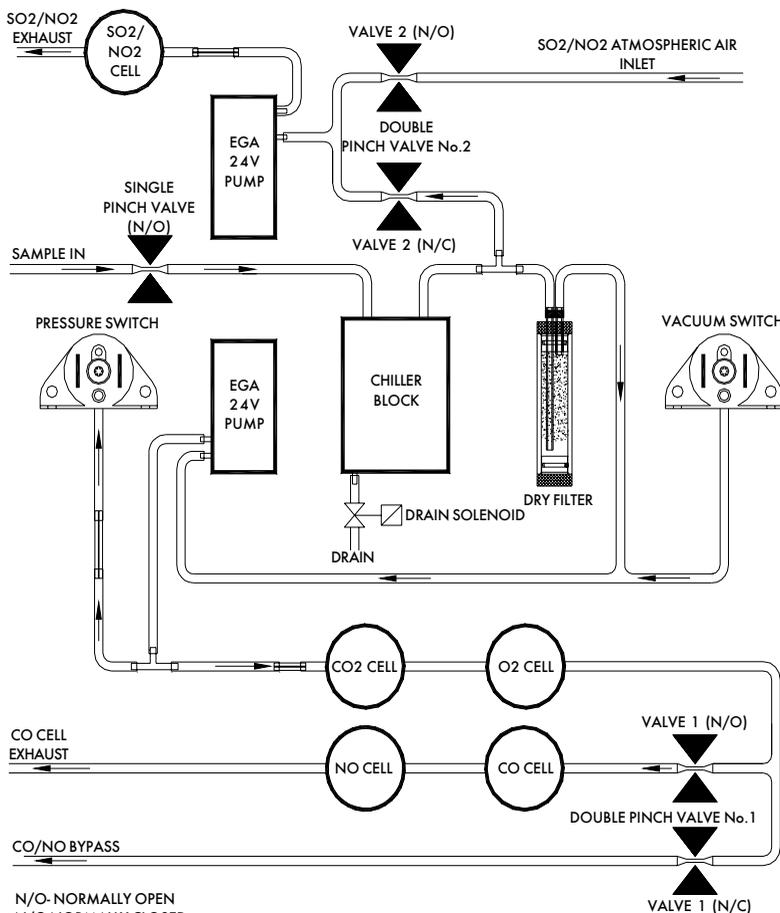
Overview of System Operation

Using a conventional probe, a sample is drawn from the exhaust gas ducting via small bore tubing to the wall mounted EGA system. A micro processor is used to constantly supervise the sample conditioning system and analyser measuring sensors, thus providing a drift free measuring system. The sample is first filtered, then the water is removed using a specially designed gas cooler. The sample flow is controlled and monitored and is drawn through the measuring part of the system by an internal pump, then exhausted into the atmosphere or to a convenient drain.

The system is intended to be run unattended, with routine maintenance limited to cleaning of filters. Self diagnostics with alarm relays and indicators provide the operator with early warning of any problems and an indicator of when service is due.

The analyser package is configured to continuously measure the following gases:

O ₂	Oxygen	0-20.9%
CO	Carbon Monoxide	0-999ppm
CO ₂	Carbon Dioxide	0-20%
NO	Nitrogen Oxide	0-999ppm
SO ₂	Sulphur Dioxide	0-999ppm OR
NO ₂	Nitrogen Dioxide	0-999ppm all by volume

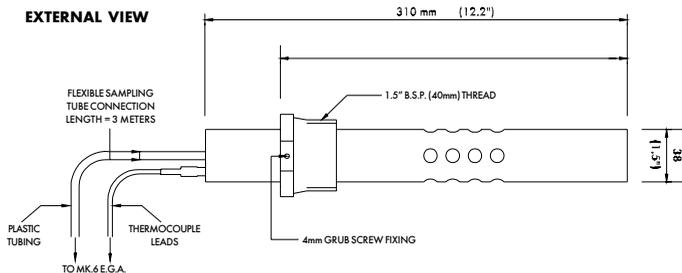
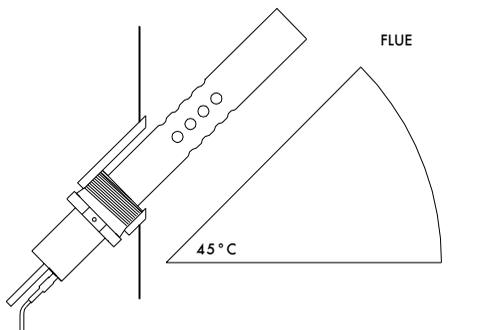


N/O- NORMALLY OPEN
N/C- NORMALLY CLOSED





E.G.A. SAMPLING PROBE POSITIONED IN FLUE



A maximum of six 4-20 mA output signals are available. In addition to the above, signals are available for:-

Combustion efficiency % (a calculation of O₂ and temp)

Exhaust gas temperature - degrees Celsius or Fahrenheit.

This complete system can be used for continuous measurement of flue gas and the results can be downloaded to a data acquisition system via the Autoflame Data Transfer Interface (DTI).

MM/EGA Combustion Trim Operation

Using the output signals for O₂, CO and CO₂ from the EGA it is possible to expand the Autoflame Micro Modulation (MM) unit so that the software will inflict minute corrections to the air damper or the fan speed drive. These minute changes ensure that the originally entered commissioning data is adhered to irrespective of variations in stack pressure or barometric conditions.

Limits on Five Measured Combustion Parameters O₂, CO, CO₂, NO and Exhaust Gas Temperature

The limits control software, which is available in the MM module, further extends the application and control possibilities of the system when the EGA unit is used. The function of the limits control software enables the end user or commissioning engineer to insert upper and lower control limits for O₂, CO₂, CO, NO and exhaust gas temperature.

Automatic Calibration

A local display is used for automatic calibration of the EGA. The EGA has a programmed calibration facility for checking zero and span of the cells installed. The display enables cell replacement, analogue output set-up, error log and system configuration. For more involved service work the unit is designed to be self contained and simply unplugged for return to the factory.

Technical Specification

Part Number	MM60002/E
Power Supply	230V 50Hz/120V 60Hz
Ambient Temperature Limits	+41°F to +104°F
Environmental Rating	IP20
Up to 6 off 4-20mA Output Signals Available.	

Environmental enclosure available on request for non-standard ambient conditions.

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