

Model 3000MO Heated Flame Ionisation Detector Methane Only Analyser

- 0-4ppm up to 0-1000ppm ranges available
- Fast response
- Reference method for measuring THC



Overview

Heated flame ionisation detection is the reference method technique for measuring total hydrocarbons (THC, VOC, TOC). In this analyser a catalyst is used to oxidise all higher fractions than methane to provide a reading for methane only. The advantages of this method are that it can be used for hot, wet samples. Maintaining an elevated temperature prevents the dropout of heavy hydrocarbons along the sample line.

The Model 3000MO methane only analyser is designed for use with a standard Model 3000HM, or any other total hydrocarbon analyser, to allow the derivation of a value for non methane hydrocarbons. In order to do this a reading must be taken for the concentration of methane and subtracted from the total hydrocarbon reading to derive a value for the hydrocarbons excluding methane.

Operation

This model utilises a catalyst that is highly specific to methane. It is supplied ready calibrated to optimum balance between allowing methane through and oxidising all higher fractions.

We recommend the use of hydrogen/helium mixture as fuel for applications where oxygen levels are unpredictable to minimise the effects of oxygen synergism. The Model 3000MO is also available with hydrogen fuel option for ambient applications where oxygen levels are stable.

The Model 3000MO has a user friendly interface with status pages for simple diagnostics. With automatic calibration settings, and remote control capability it is ideal for CEMs and other low maintenance applications.

Options

Signal SIGEMS software is available for logging and reporting.

The Model 3000HM is also available in total hydrocarbon configuration.

Please contact us for further details on these options.

Specifications

Measurement technique	Heated FID (flame ionisation detector)
Measuring range	0-4ppm up to 0-1000ppm methane
Cutter efficiency	>98% propane
Response	5 seconds to T ₉₀
Bypass flow sensitivity	Less than 2% from 1 to 3L/min
Accuracy and repeatability	Better than 1% of range or 0.2ppm, whichever greater
Zero drift	Less than 0.1% of range in 24 hours
Linearity	2% of point or 0.5% FSD
Temperature effects	Zero: Less than 0.15ppm/DegC Span: Less than 0.1% range per DegC
Noise	Less than 0.1ppm or 0.5% range
Inlet pressures	Sample: -5 to 15 psi Calibration: 7psi to 30psi
Sample filter	Removable 0.4 micron PTFE
Display	240 x 64 pixel with backlight
Remote control	AK protocol via RS232 port
Power	Switchable 110/230VAC
Dimensions	19" rack mounting 3U high 19" x 133.5mm x 570mm
Weight	Approximately 30Kg
Concentration outputs	0-10V and 4-20mA isolated
Range output	1-8VDC
Ambient temperature	5-35 DegC
Fuel consumption	60ml/min Hydrogen fuel or 180ml/min H ₂ /He fuel