



# MM2000™

## Addressable Gas Detection System

MM2000™ is an intelligent addressable gas detection system designed to provide flammable, toxic and asphyxiant gas detection in all types of individual applications.

The MM2000™ system operates on a single 4-core cable having the capacity to monitor from 1 to 32 addressable sensors. The control system provides local indication of the measured parameters and alarm conditions together with relay contacts to shut down machinery or to alert operators in other locations.

### THE BENEFITS

- Loop sensor cable for low cost installation
- One man calibration
- Compact panel for the smallest control rooms
- No moving parts
- Continuous monitoring of all sensors
- Relay contacts for shutting down or alerting remote systems



MM1000™ Gas Detector

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## Technical Specifications

### MM2000™ Controller

<b>Sensor Points</b>	1 to 32
<b>Power</b>	24V dc, 110V/220V ac 50/60Hz
<b>Inputs</b>	Flammable, toxic (e.g. H2S), oxygen
<b>Display</b>	4 line alphanumeric LCD indicating: Sensor address; gas type; concentration (rising or falling); peak hold; alarm status; system fault; line fault; line inhibit
<b>Power</b>	Twin Green LEDs
<b>Alarm</b>	Twin Red LEDs
<b>Fault</b>	Twin Amber LEDs
<b>User Interface</b>	Menu driven via LCD 6No. panel mounted membrane push buttons with security
<b>Outputs</b>	<ul style="list-style-type: none"><li>• 3 alarm levels per channel;</li><li>• 16 user programmable volt-free SPCO relays for shutting down air conditioning or other machinery as required N/E or N/DE, latched or unlatched</li><li>• Common fault relay SPCO N/E or N/DE</li><li>• Mains fail relay SPCO N/E or N/DE 9way</li><li>• D-Type connector ASC11RS232 comms</li></ul>
<b>Ingress Protection</b>	IP52
<b>Local Alarm</b>	Internal buzzer for alarm/fault with mute
<b>Cable Details</b>	<ul style="list-style-type: none"><li>• Main network – 4-core (2 power – 2 comms)</li><li>• 1.5mm<sup>2</sup> screened max &lt; 500m</li></ul>
<b>Environmental</b>	Complies with Class Criteria
<b>Temperature</b>	-40°C to +55°C
<b>Panel Dimensions</b>	315mm (W) x 260mm (H) x 75mm (D)
<b>Fixing Detail</b>	<ul style="list-style-type: none"><li>• 4 x M4 on 228mm (H) x 278mm (D)</li><li>• On rectangular template</li></ul>
<b>Weight</b>	3.4kg
<b>Cable Entry</b>	Top, bottom or rear

### MM1000™ Flammable Gas Detector

<b>Certification</b>	EEx d IIC T6 – zones 1 and 2
<b>Range Flam</b>	0 - 100% LEL
<b>Range H2S</b>	0-50ppm, 0-100ppm
<b>Range O2</b>	0-25% v/v
<b>Range CO</b>	0-300ppm, 0-500ppm
<b>SCS Cert No.</b>	EX98EII87X / 03ATEX1176X
<b>Operation</b>	Continuous diffusion
<b>Housing Material</b>	316 stainless steel
<b>Dimensions</b>	33mm (diameter) x 33mm (L)
<b>Environmental Data</b>	Tested on ENV2 (Lloyds test specification 1)
<b>Temperature</b>	-40°C to +55°C
<b>Weight</b>	165g
<b>Accessories</b>	Dust and spray protector, duct mount kit
<b>Sensor Junction Box Certification</b>	EEx d IIC T6
<b>Housing Material</b>	Galvanised cast iron
<b>Dimensions</b>	126mm (diameter) x 86mm (D)
<b>Fixing Details</b>	2 x M6 appropriate fasteners
<b>Cable Entry</b>	Top M20 x 1.5P
<b>Weight</b>	2kg
<b>Sensor Cable</b>	4-core 1.5mm <sup>2</sup> screened and unarmoured marine approved

