

MM2000™

AIR CONDITIONING INLET GAS DETECTION SYSTEM FOR ISGOTT 5 GUIDELINES

MM2000™ is an intelligent addressable gas detection system designed to provide flammable gas detection in tanker air conditioning inlets to reflect the guidance in section 24.2 of the newly published 'Fifth Edition of ISGOTT' (International Safety Guide for Oil Tankers & Terminals).

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 air conditioning on detection of flammable vapours in the air conditioning (A/C) inlets.

- ① TYPE APPROVED
- ① LOOP SENSOR CABLE FOR LOW COST INSTALLATION
- ① ONE MAN CALIBRATION
- ① COMPACT PANEL FOR THE SMALLEST CCR
- ① NO MOVING PARTS
- ① CONTINUOUS MONITORING OF ALL SENSORS
- ① RELAY CONTACTS FOR SHUTTING DOWN A/C



SPECIFICATIONS

MM2000™ CONTROLLER

Sensor Points	1 to 32	Local Alarm	Internal buzzer for alarm/fault with mute
Power	24V dc, 110V/ 220V ac 50/ 60Hz	Cable Details	Main network – 4-core (2power - 2comms) 1.5mm ² screened max < 500m
Inputs	Flammable, toxic (eg: H ₂ S), oxygen	Environmental	Complies with Class Criteria
Display	4 line alphanumeric LCD indicating: Sensor address; gas type; concentration (rising or falling); peak hold; alarm status; system fault; line fault; line inhibit	Panel Dimensions	315mm (W) x 260mm (H) x 75mm (D)
Power	Twin Green LED's,	Fixing Detail	4 x M4 on 228mm (H) x 278mm (D) On rectangular template
Alarm	Twin Red LED's	Weight	3.4 kg
Fault	Twin Amber LED's	Cable Entry	Top, bottom, or rear
User Interface	Menu driven via LCD and 6No. panel mounted membrane pushbuttons with security	Lloyds Type Approval	Certificate 04/00079
Outputs	3 alarm levels per channel 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. Common fault relay SPCO N/E or N/DE. Mains fail relay SPCO N/E or N/DE 9 way. D- type connector ASC11RS232 comms		
Ingress Protection	IP52		

MM1000™ FLAMMABLE GAS DETECTOR

Certification	EEx d IIC T6 - zones 1 & 2	Accessories	Dust & spray protector, duct mount kit
Range	0 – 100% LEL	Sensor Junction Box Certification	EEx d IIC T6
SCS Cert No.	EX98EII87X / 03ATEX1176X	SCS Cert No.	SIRA02 ATEX1034X
Operation	Continuous diffusion	Housing Material	Galvanised cast iron
Housing Material	316 stainless steel	Dimensions	126mm (diameter) x 86mm (D)
Dimensions	33mm (DIA) X 33mm (L)	Fixing Details	2 x M6 appropriate fasteners
Environmental Data	Tested to ENV2 (Lloyds test specification 1)	Cable Entry	Top M20 x 1.5P
Weight	165g	Weight	2kg
		Sensor cable	4 core 1.5mm ² screened & unarmoured marine approved

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