Murco Gas Detector (MGD)

Robust, gas monitoring solution which detects most gases

The Murco Gas Detector (MGD) is a reliable fixed gas detector which can detect a wide range of different gases. The MGD is a stand-alone set-point alarm system, which can also connect to external systems using it's relay outputs.

It is a straight-forward proven product available at a competitive price and it offers customers absolute confidence that both safety and compliance requirements are met or exceeded. It is ideal for:

- buildings/areas that require reliable, real-time continuous monitoring
- customers who want to add gas detection solutions to an existing environment, e.g. chiller installations to meet new legislation and refrigerants, energy and building regulations

APPLICATIONS

Typical applications include:

Refrigerant gases all refrigerant gases including: Ammonia, Carbon Dioxide, Hydrocarbons, Halocarbons - HFCs, HCFCs, CFCs.

Combustible gases such as: Methane, LPG, Propane, Butane, and Hydrogen

Toxic gases such as: Carbon Dioxide and Ammonia in refrigeration and Carbon Monoxide in underground car parks

Volatile Organic Compounds such as: Acetone, Benzene, Carbon Tetrachloride, Chloroform, Ethanol, Toluene, Trichloroethylene.

Optional Housings Available

Murco also supply a variety of housings to suit all industry applications so that you can have your ideal solution. See overleaf for the full range. Made-to-order housings can also be supplied.

Benefits

Cost Effective Detection

Murco is committed to delivering highly competitive quality products and solutions. The early detection of gases afforded by Murco Gas Detectors minimises the cost associated with leaks.

Legal Compliance

The MGD series enables compliance with all the necessary regulatory, legal and Insurance requirements.

Environmental Considerations

The early detection of gas minimises emissions. Also Murco Gas Detectors enable compliance with all relevant environmental legislation and the product itself is fully recyclable.

Better Performance

Because Murco Gas Detectors offer reliable, real-time and continuous monitoring, you can avoid all the usual problems that occur with aspirated systems as a result of blocked filters, damaged tubes and delayed sample analysis.

Tailored to Task, Tailored to Gas

Each detector can be individually specified to meet your requirements in terms of the type of gas to be detected, the range and alarm level. You select the output preferred to integrate the sensor into your system. The relay output can be used to integrate the MGD into your overall control system or BMS.

Increased Connectivity/Control

The MGD can interface with most Control and Building Management Systems using its digital outputs (Relays).
A relay expander box with a relay for each sensor and alarm level is available for 4 and 6 sensor 2 level models.

"Whatever your business and whatever your budget, Murco has a gas detection system to suit you.

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Murco Gas Detector **(MGD)** Data Sheet

Technical Specification	Controller with 1 or 2 sensors		Controller with 4 or 6 sensors	
Alarm Levels	One Level	Two Level	One Level	Two Level
Power Supply	Available in 230V a.c 50Hz / 120V a.c 60Hz / 12V d.c			
Power Monitoring	Green LED	Green LED	Green LED	Green LED
Visual Alarm	Red LED	Orange LED (low) Red LED (high)	Red LED	Orange LED (low) Red LED (high)
Fault Monitoring	Red LED, Volt free relay/ Siren inactive	Red LED, Volt free relay/ Siren inactive	Red LED, Volt free relay/ Siren inactive	Red LED, Volt free relay/ Siren inactive, Fault relay active
Audible Alarms	Internal Sounder - continuous	Internal Sounder - intermittent (low) continuous (high)	External Sounder - continuous	External Sounder - intermittent (low) continuous (high)
Siren Deactivate	by onboard jumper	by key switch	by onboard jumper	by key switch
Volt Free Relay on Alarm	10 Amp@ 230/120V	10 Amp@ 230/120V (both low & high level)	10 Amp@ 230/120V	10 Amp@ 230/120V (both low & high level)
Relay Expander Box - one relay for each sensor/alarm level	N/A	N/A	N/A	Available
Reset	Automatic when gas clears	Automatic when gas clears (low) Latch out, manual reset by push Button when gas clears (high)	Automatic when gas clears	Automatic when gas clears (low) Latch out, manual reset by push Button when gas clears (high)
Delayed Response	Selectable to the presence of gas 3 min	To the presence of gas 25 sec (low) To the presence of gas 30 sec (high)	Selectable to the presence of gas 3 min	To the presence of gas 25 sec (low) To the presence of gas 30 sec (high)
Delayed Start	On power up, 3 min to allow 2 level system to normalise. From storage it takes longer, so you may wish to deactivate the siren while normalisation takes place		On power up 3 min, to allow 2 level system to normalise. From storage it takes longer,so you may wish to deactivate the siren while normalisation takes place	
Ratings	Controller: IP 51	Standard Sensor: IP41	Controller: IP 51	Standard Sensor: IP41
Dimensions & Weight	Controller: Standard Sensor:	214 x 105 x 80 mm 1.3kg 86 x 120 x 53 mm 150g	Controller: Standard Sensor:	262 x 265 x 84 mm 2.6kg 86 x 120 x 53 mm 150g
Cabling Controller-sensor	4 wire cable, 40 meters 7/0.2mm (200 feet, 22 gauge @120V a.c)		4 wire cable, 100 meters 7/0.2mm (500 feet, 22 gauge @120V a.c)	
Standards Compliance	CE Ex WEEE RoHS EuP			

OPTIONAL HOUSINGS

Standard

86x140x53mm

150g

IP66

175x165x82mm

600g

IP66
Splash Guard Fitted

175x225x82mm

672g

M42 Thread

Splash Guard

75x50

72g

IP66 / Remote Head

175x155x82

760g

Exd

30x160x90mm

4200g

Exd Remote Head / IP66

175x155x82mm

1153g

PRV / IP66

175x155x82mm

880g

Airflow / Duct Mount IP66

175x125x82mm

553g

Remote / Face Plate

86x86mm

86g

Typical Sensor Information	Semiconductor with filter (multigas)	Infrared for CO2 (specific)
Typical Measurement Range	10-1,000ppm	0-10,000ppm - %
Standard Humidity Range (non condensing)	0 to 95%	0 to 95%
Sensor Life Time Alarm Threshold Recovery Time	5 to 8 yrs 24 sec 600 sec	5 yrs 30 sec 210 sec
Calibration	Local regulations may specify the procedure and frequency required. Standards generally require at least annual testing or calibration. Refer to Murco for instructions. Semiconductor sensors are non-selective, but calibrated to a specific gas.	

Temperature Range	Sensor Types	
	Semi Conductor	IR
Standard Enclosure	-20 - +50ºC	-20 - +50ºC
IP 66	-40 - +50ºC	-40 - +50ºC
IP 55 Low Temp	-50 - +50ºC	-50 - +50ºC

INFRARED		
Carbon Dioxide	CO_2 standard model	0-10,000ppm (0-1%vol)
Carbon Dioxide	CO_2 special request	0-1,000ppm 0-2,000ppm 0-20,000ppm 0-5%, 0-10%

SEMICONDUCTOR		
HFC's - typical examples	R134a, R404A, R407, R410A, R507	10-10,000ppm
HCFC's - typical example	R22	10-10,000ppm
CFC's - typical examples	R11,R12	10-10,000ppm
Hydrocarbons -typical examples	Methane(Natural gas), Propane, Butane, LPG, Isobutane, Ethylene	0-10,000ppm
Ammonia	NH_3	0-10,000ppm
Hydrogen	H_2	0-10,000ppm
VOC's - typical examples	Acetone, Chloroform, Ethanol, Methanol, Methyl and Methylene Chloride, Ethyl and Ethylene Chloride	0-10,000ppm