



# CLIMATE CONTROLLER

## MURCO MGD fixed leak detector



Non-contractual photos.

### INTRODUCTION

**Climalife** offers a range of **Murco MGD** climate controllers which allow you to detect cooling fluid leaks from refrigeration and air conditioning equipment.

The climate controllers have an adjustable detection threshold of between 10 ppm and 10 000 ppm.

### REGULATORY ASPECTS

According to European regulation No. 842/2006, known as F-Gas, order No. 1 of French decree 2007-737 regarding watertightness inspections specifies the measurements and methods to be used to avoid greenhouse gas emissions and reduce them to a minimum.

According to European standard EN 378-1, "refrigeration systems must be equipped with the accessories required for testing, monitoring, maintenance and collection of cooling fluid..."

**Murco MGD** climate controllers conform to European standard EN 14624 and article 4 of order No. 1 of French decree 2007-737 of 7th

May 2007, which sets a minimum sensitivity level of 10 ppm.

**Murco MGD** climate controllers meet the obligation to provide this type of equipment for installations with a load greater than 300kg, in accordance with article 3, paragraph 3 of European regulation No. 842/2006, known as F-Gas.

In addition, the installation of a **Murco MGD** climate controller for equipment with a load  $\geq$  30kg allows the frequency of on-site testing by certified operators to be halved

**Murco MGDs** meet the requirements of the WEEE (Waste electrical and electronic equipment)



### TECHNICAL ASPECTS

The **Murco MGD** climate controller detects cooling fluids and gases in numerous applications.

**Climalife** offers a range of **Murco MGDs** equipped with semi-conductor probes to detect HCFC type cooling fluid, and the most frequently used HFCs.

Please ask us about fluids such as ammonia NH<sub>3</sub>, CO<sub>2</sub>, etc.

The adjustable detection threshold of 10ppm to 10 000 ppm is pre-set in the factory to 100 ppm.

The **Murco MGD** is made up of a central unit which may be equipped with 1, 2, 4 or 6 probes with 1 or 2 alarm levels (detection), depending on the model selected.

The type of probe must be selected according to the fluid to be detected.

Only one type of fluid can be detected by 1 level equipment, and several types of fluid can be detected by 2 level equipment.

The detection probes can be moved up to 40m from the case with 1 and 2 probe models and up to 100m with 4 or 6 probe models.

The probes are positioned within the area to be monitored, which allows continuous control with no possibility of error.

The **Murco MGD** is equipped with a visual, sound and relay (10A-230V) internal alarm for each alarm level, which can be attached to an external alarm.

It has spare contacts for remote monitoring, or activation of external safety equipment, such as ventilators, general alarms etc.

A 12V/110mA outlet is available on 4 or 6 probe devices.

If you need more than 6 probes, it is possible to link several **Murco MGD** climate controllers.

They are approved for use in Exe or EXds risk areas.

### MURCO CODIFICATION

<b>MGD</b>	<b>1S</b>	<b>C</b>	<b>1L</b>
↑	↑	↑	↑
MGD Murco Gas Detector	Number of probes 1, 2, 4, or 6 "S"	Gas classification as A or C or exactly specified type of gas (R404A, NH <sub>3</sub> ...)	Detection level 1 or 2, 1L or 2L



## TECHNICAL DESCRIPTION

Specifications	1 or 2 probe controllers		4 or 6 probe controllers	
	1 level	2 levels	1 level	2 levels
Detection levels	1 level	2 levels	1 level	2 levels
Feed	Available as 230V-50Hz			
Feed indicator	green LED			
Installation time delay (auto-control)	3 minutes			
LED visual alarm	Red	Orange: low level Red: high level	Red	Orange: low level Red: high level
Siren sound alarm	Internal, continuous	Internal, levels: - low = intermittent - high = continuous	External, continuous	Internal, levels: - low = intermittent - high = continuous
Alarm trigger time delay after detection *	3 minutes	low level 25s. high level 30s.	3 minutes	low level 25s. high level 30s.
Alarm reset	Automatic following dispersal of pollutants	Low level - automatic High level - manual (30 to 60s following dispersal of pollutants)	Automatic following dispersal of pollutants	Low level - automatic High level - manual (30 to 60s following dispersal of pollutants)
De-activation of the siren**	Tab inside the case	Key under the case	Tab inside the case	Key under the case
Available outlets	one 10A-230V outlet	two 10A – 230 V outlets 1 low level + 1 high level	one 10A – 230V outlet	two 10A -230V outlets 1 low level + 1 high level
Independent outlet	-		12V DC-100 mA	
Probe-controller wiring	4 wire cables – 40m max. under 220v a.c. – 7/0.2mm		4 wire cables – 100m max. under 220v a.c. - 7/0.2mm	

\* limits accidental alarms

\*\*  only if required for intervention or maintenance installations by certified technicians



## GAS CLASSIFICATIONS

Cooling fluid	Type of probe	Cooling fluid	Type of probe
<b>HCFC</b>		<b>HFC</b>	
R-22	A	R-23	C
R-141B	A	R-134a	C
R-123	C	R-404A	C
R-408A	A	R-407A	C
R-409A	A	R-407C	C
R-409B	A	R-410A	C
R-401A	A	R-507	C
R-401B	A	R-427A (FX100)	C
R-402A	A	R-422A (Isceon MO79)	C
R-402B	A	R-422D (Isceon MO29)	C
R-403B	A	R-417A (Isceon MO59)	C
R-502	A		
R-500	C	<b>HYDROCARBONS</b>	
<b>AMMONIA</b>		R-290 (propane)	HYD
R-717	NH <sub>3</sub>	R-600a (isobutane)	HYD

Lifetime of semi-conductor probes with filters: 5 to 8 years

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