SAFEHOUSE HABITATS
STARN GROUP

GAS SENSING MODULE (GSM)

DESCRIPTION

The gas sensing module (GSM) is designed to ensure that ambient air being ducted into a SAFEHOUSE habitat is free from flammable and toxic gases, and it is therefore safe to operate inside the welding enclosure. The gas sensing module consists of an air ducting assembly with an integral damper, which can turn to close off the duct if a gaseous hazard is detected.

Gas sensors are sited upstream of the damper and detect the levels of flammable and H2S gas in the ducted air flow. If the flammable or H2S gas level in the duct rises above 10% LEL (lower explosive limit) or 5ppm (parts per million) respectively, then the gas sensing module automatically closes the damper, illuminates a red sounder beacon and sets off a sounder to warn of the presence of a potentially dangerous build-up of flammable or toxic gas. The damper cannot be re-opened until the flammable or toxic gas concentration reduces to below alarm level.

A remote flashing beacon may also be connected to the gas sensing module to provide additional warning indication.

If the gas sensing module has a remote gas sensor connected, the alarm will activate at 10% LEL, but the damper will stay open allowing safe air in to maintain habitat integrity, while alerting the work party of the hazardous condition. When the welding control module is connected to the gas sensing module, automatic shutdown of hot work tools will occur during any alarm condition.

EQUIPMENT MARKS

MARK	PRODUCT CODE	INTERNAL METHANE SENSOR	METHANE INDICATOR LAMP	INTERNAL H,S SENSOR	H,S INDICATOR LAMP	240VSOCKET OUTLET	RGSSOCKET	MSM SOCKET	OXYGEN DEPLETION SENSOR
1	EL-MN-GSM-01	✓	✓	-	-	-	-	-	-
2	EL-MN-GSM-02	✓	✓	✓	✓	-	-	-	-
3	EL-MN-GSM-03	✓	✓	-	-	✓	-	-	-
4	EL-MN-GSM-04	✓	✓	✓	✓	-	✓	✓	-
5	EL-MN-GSM-05	✓	✓	✓	✓	-	✓	✓	✓

Safehouse Habitats (Scotland) Ltd, Strathmore House, Claverhouse Industrial Park, Charles Bowman Avenue, DD4 9UB T:+44(0)1382 814122 E:info@safehousegroup.com

SAFEHOUSE HABITATS
STARN GROUP

KEY FEATURES

FLAMMABLE AND TOXIC GAS DETECTION

CLOSES A DAMPER TO PREVENT FLAMMABLE OR TOXIC GAS ENTERING THE HABITAT THROUGH THE INLET DUCT

AUDIO AND VISUAL ALARM ON UNIT

REMOTE SOUNDER BEACON FOR AUDIO AND VISUAL ALARM INSIDE HABITAT OR REMOTE LOCATION

SHUTDOWN SIGNAL SENT TO WCM (IF CONNECTED)

OXYGEN LEVEL MONITORING (MARK 5 ONLY)

AUXILIARY EQUIPMENT

WCM - WELDING CONTROL MODULE

RSB - REMOTE SOUNDER BEACON

RGS - REMOTE GAS SENSOR

MSM - MULTI-SENSING MODULE

PDM - PRESSURE DIFFERENTIAL MODULE

TECHNICAL SPECIFICATION

CERTIFICATION	**ATEX** Cert: Baseefa10ATEX0087X ⟨Ex⟩II2G Ex d e ia ib mb q IIB T4 Gb (Tamb -20°C to +50°C) OR Cert: Baseefa14ATEX0127X ⟨Ex⟩II2G Ex d e ia ib mb q IIB + H2 T4 Gb (Tamb -20°C to +50°C) **IECEx** Cert: IECEx PRE 19.0037X Ex 60079-46 IIB T4 Gb (Tamb -20°C to +50°C)
OPERATING TEMPERATURE	-20°C to +50°C
DIMENSIONS (L X W X D)	1 120mm x 310mm x 820mm
WEIGHT	51kg
INPUT VOLTAGE	88-264 VAC 47-63Hz
POWER PLUG TOP OPTIONS	CEAG (Standard) STAHL
POWER CONSUMPTION	200W Max
DETECTION RANGE*	0-100% LEL Methane 0-50ppm H2S
ALARM LEVELS*	10% LEL CH4 5ppm H2S

* Other levels and gases available

SAFEHOUSE is a registered Trade Mark of SAFEHOUSE Habitats (Scotland) Limited registered in the UK, the European Community and other countries around the world.

All rights reserved. Any other Trade Marks not owned by SAFEHOUSE Habitats (Scotland) Limited that appear herein are the property of their respective owners, who may, or who may not, be affiliated with, or connected to, SAFEHOUSE Habitats (Scotland) Limited.

© 2025 SAFEHOUSE Habitats (Scotland) Limited.

Safehouse Habitats (Scotland) Ltd, Strathmore House, Claverhouse Industrial Park, Charles Bowman Avenue, DD4 9UB T:+44(0)1382 814122 E:info@safehousegroup.com