

GMT Toxic Gas Detection Head

Ozone (O₃)



UTILISES WELL PROVEN AND RELIABLE SENSOR TECHNOLOGY



SUITABLE FOR HAZARDOUS AREA USE (WITH SUITABLE ZENER BARRIER)  **II 1 G EEx ia IIC T4**



INDUSTRY STANDARD ANALOGUE 4 ~ 20 mA O/P



SIMPLE CONSTRUCTION ALLOWS EASY SENSOR REPLACEMENT



VERY ROBUST STAINLESS STEEL CONSTRUCTION



GMT Detection Head

The GMT range of detection heads provides a comprehensive range of toxic gas detectors for connection to our gas detection control panels. They are designed to provide a rugged, reliable, easy to maintain solution to your fixed gas detection needs. They can be used in safe area locations or when used with a suitable zener barrier device in all flammable hazardous areas as they are also designed to be intrinsically safe (ia).

Gas Information Ozone (O₃)

Ozone is a colourless gas with a pungent smell. It is an air pollutant of much concern in Europe, because it can affect human health and damage the environment.

Ozone at ground level – in the air we breathe – is not to be confused with the ozone layer in the upper atmosphere, which shields the Earth from the sun's ultraviolet rays. Up there ozone is 'good' – at ground level it is 'bad'.

Ozone is formed when certain gases, for example from car engines and power stations, react under the action of sunlight. Since the formation of ozone requires sunlight, the highest levels of ozone pollution occur during periods of hot and sunny weather. The largest use of ozone is in the preparation of pharmaceuticals, synthetic lubricants, as well as many other commercially useful organic compounds, where it is used to sever carbon-carbon bonds. It can also be used for bleaching substances and for killing microorganisms in air and water sources. Many municipal drinking water systems kill bacteria with ozone instead of the more common chlorine. Ozone has a very high oxidation potential. Ozone does not remain in the water after treatment.

O₃ Relative Density (Air =1) = 1.66 Typical O₃ Detection head location would be at the lowest level available.


EH40 workplace exposure recommended exposure limits :-

Short term exposure limit (15 min TWA reference period) 0.2 ppm

(Long term exposure limit not stated)



General Details

Type:	GMT—Ozone
Part number	59545—0-2 parts per million (PPM)
Certification	 II 1 G EEx ia IIC T4 Certificate BAS00ATEX1042X
Ingress Protection	IP 54 (sensor electronics)
Sensor Type	Electrochemical
Mounting Thread	20mm. 1.5mm Pitch
Supply Voltage	24 Vdc $\pm 10\%$
Connections	Red – N.C. Yellow – Signal/supply. Blue – 0v. Green – Screen
Output	4~20 mA Linear 2/3 wire
Material	Stainless Steel EN316
Weight	166gms.
Dimensions:	Body 48mm. long x 42mm. dia.
EMC Regulations	EC Directive 89/336/EEC
Low voltage	EC Directive 73/23/EEC

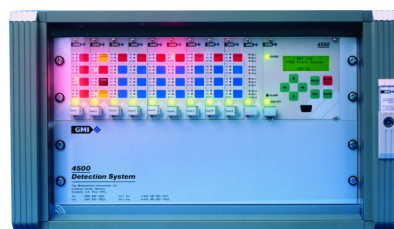
Compatible GMI control panels



SPGA



ACTIVE-8



4500 GAS ALARM



ACTIVE-80

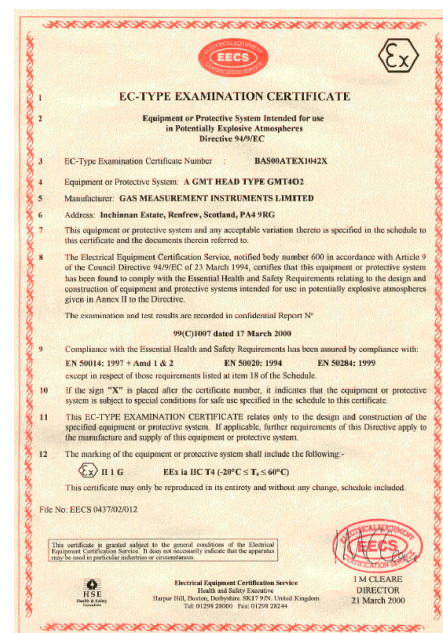
Replacement Sensor
Calibration Cap Assembly

GMI Part number 59586
GMI Part number 59614



Sensor Specification

Nominal Range	0-2 ppm
Maximum Overload	5 ppm
Expected Operating Life	24 Months in Air at STP
Temperature Range	-20°C. to +40°C.
Pressure Range	Atmospheric $\pm 10\%$
Response Time	Typically 25 seconds to T90 Typically 12 seconds to T50
Relative Humidity Range	15 to 90% non-condensing
Repeatability	$\pm 2\%$ of reading
Zero stability	$\pm 1\%$ F.S.D.
Output Linearity	Linear
Warranty Life	12 Months from date of despatch
Calibration frequency	6 months recommended



As a BS EN ISO 9001:2008 approved company, GMI Ltd's quality assurance programmes demand the continuous assessment and improvement of all GMI products. Information in this leaflet could thus change without notification and does not constitute a product specification. Please contact GMI or their representative if you require more details.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.