

GMT Toxic Gas Detection Head

Chlorine (Cl₂)



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 Chlorine (Cl₂)

Chlorine is a yellow-green gas at room temperature. Chlorine has a pungent, irritating odour similar to bleach that is detectable at low concentrations.

The density of chlorine gas is approximately 2.5 times greater than air, which will cause it to initially remain near the ground in areas with little air movement.

Chlorine is not flammable, but may react explosively or form explosive compounds with many common substances (including acetylene, ether, turpentine, ammonia, natural gas, hydrogen, and finely divided metals).

Chlorine is slightly water soluble, and reacts with moisture to form hypochlorous acid (HClO) and hydrochloric acid (HCl).

Chlorine is commonly pressurized and cooled for storage and shipment as an amber-coloured liquid.

Chlorine has a variety of uses. It is used to disinfect water and is part of the sanitation process for sewage and industrial waste. During the production of paper and cloth, chlorine is used as a bleaching agent. It is also used in cleaning products, including household bleach which is chlorine dissolved in water. Chlorine is used in the preparation of chlorides, chlorinated solvents, pesticides, polymers, synthetic rubbers, and refrigerants. Because chlorine is a gas at room temperature, exposure normally occurs via inhalation. People may also be exposed to chlorine through skin or eye contact, or through ingestion of chlorine-contaminated food or water. The health effects resulting from most chlorine exposures begin within seconds to minutes. The severity of the signs and symptoms caused by chlorine will vary according to amount, route and duration of exposure.

Cl₂ Relative Density (Air = 1) = 2.473. Typical Cl₂ Detection head location would be at lowest level available.


EH40 workplace exposure recommended exposure limits :-

Long term exposure limit (8 hour TWA reference period) - Not stated

Short term exposure limit (15 min TWA reference period) 0.5 ppm



General Details

Type:	GMT—Chlorine
Part number	59540—0-20 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 EN 316
Weight	166gms.
Dimensions:	Body 48mm. long x 42mm. dia.
EMC Regulations	EC Directive 89/336/EEC
Low voltage	EC Directive 73/23/EEC

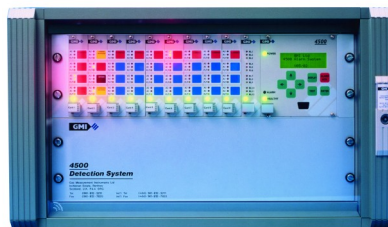
Compatible GMI control panels



SPGA



ACTIVE-8



4500 GAS ALARM



ACTIVE-80

Replacement Sensor
Calibration Cap Assembly

GMI Part number 59585
GMI Part number 59614

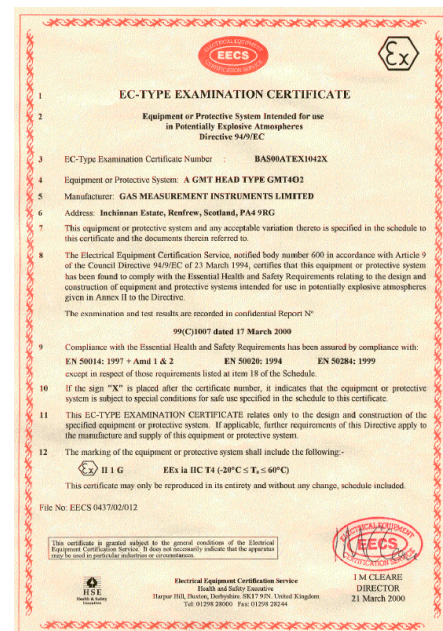


Sensor Specification

Nominal Range	0-20 ppm
Maximum Overload	250 ppm
Expected Operating Life	Two Years in Air
Temperature Range	-10°C. to +40°C.
Pressure Range	Atmospheric $\pm 10\%$
Response Time	Typically 40 seconds to T90 Typically 20 seconds to T50.
Relative Humidity Range	15 to 90% non-condensing
Repeatability	$\pm 2\%$ of reading
Zero Stability	$\pm 1\%$ of F.S.D.
Output Linearity	Linear
Warranty Life	12 Months from date of despatch
Calibration frequency	6 months recommended



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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.