

# GMT Toxic Gas Detection Head

## Hydrogen Chloride (HCL)



**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 Hydrogen Chloride (HCL)

The compound hydrogen chloride has the formula HCl. At room temperature, it is a colorless gas, which forms white fumes of hydrochloric acid upon contact with atmospheric humidity. Hydrogen chloride gas and hydrochloric acid are important in technology and industry. Most hydrogen chloride is used in the production of hydrochloric acid. It is also an important reagent in other industrial chemical transformations, e.g.:

- Hydro chlorination of rubber
- Production of vinyl and alkyl chlorides

In the semiconductor industry, it is used to both etch semiconductor crystals and to purify silicon. Where anhydrous hydrogen chloride is desired for small scale laboratory work, the gas is available in cylinders.

HCL Relative Density (Air =1) = 1.26 Typical HCL Detection head location would be at the lowest level available.


EH40 workplace exposure recommended exposure limits :-

Long term exposure limit ( 8hour TWA reference period ) 1 ppm

Short term exposure limit ( 15 min TWA reference period ) 5 ppm



## General Details

Type:	GMT—Hydrogen Chloride
Part number	59555—0-50 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

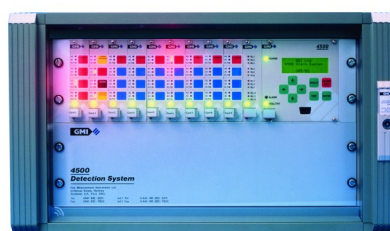
## Compatible GMI control panels



SPGA



ACTIVE-8



4500 GAS ALARM



ACTIVE-80

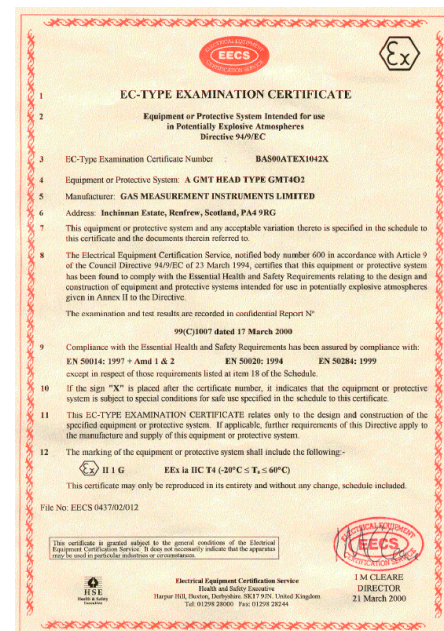
Replacement Sensor  
Calibration Cap Assembly

GMI Part number 59587  
GMI Part number 59614



## Sensor Specification

Nominal Range	0-50 ppm
Maximum Overload	100 ppm
Expected Operating Life	24 Months in Air at STP
Temperature Range	0°C. to +40°C.
Pressure Range	Atmospheric $\pm 10\%$
Response Time	Typically 25 seconds to T90 Typically 10 seconds to T50
Relative Humidity Range	15 to 90% non-condensing
Repeatability	$\pm 3\%$ 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.