



## ATEX Infra-Red Beam

**Pulse modulated active infra-red beam for hazardous areas zone 1 or zone 2**

The GS100 beam set is an intelligent detector designed to be used in association with alarm annunciation equipment or other devices that provide a means of monitoring the GS100 voltage free relay alarm output, for example CCTV integration.

The GS100 IR beam set is ATEX certified and designed for use within the petrochemical and oil sectors, as well as other similar industries where an explosion, flame, weather or dust proof housing is required.



### PRODUCT CODES

GS100 ATEX Infra-Red Beam

KEY FEATURES	UNIQUE BENEFITS
ATEX approval Gases: Zone 1 & Zone 2 Dusts: Zone 21 & Zone 22	Peace of mind that GS100 is suitable for hazardous areas
Infra-Red	Covert detection as the IR is invisible to the human naked eye
IP66 rated	Suitable for all weather conditions
100m beam range	Long range detection
TX/RX beam set synchronisation and asynchronous connection	High level security as it allows many sets of beams to be installed on the same site, or stacked above each other without 'cross interference'
Pulse modulated	Energy efficient
Heat strengthened plate glass aperture	Robust and helps combat the build-up of condensation
Tamper switch	Tamper will activate if vandalism occurs
Bioptical beam transmission system	Stable and reliable device



### SECTORS



CHEMICAL PLANTS



GAS STORAGE



PETRO CHEMICAL



EXPLOSIVE ENVIRONMENTS



OIL PLATFORMS

## TECHNICAL SPECIFICATIONS

TRANSMITTER	
DETECTION TYPE	Quad
PROTECTION DISTANCE	10m – 100m / with 75% attenuation
INPUT VOLTAGE	Nominally 12Vd.c Min 10.5Vd.c Max. 15Vd.c (15mA)
EFFECTIVE TRANSMITTED BEAM ANGLE	6° approximately
TAMPER OUTPUT	1 x voltage free N/C contact: Max. rating 24V 1A 30VA
HEATER CURRENT	125mA
IR WAVELENGTH	880nm
DIMENSIONS	160 x 146 x 137mm
TEMPERATURE RANGE	-20 °C +40 °C
WEATHER PROTECTION	IP66

RECEIVER	
DETECTION TYPE	Quad
INPUT VOLTAGE	Nominally 12Vd.c Min 10.5Vd.c Max. 15Vd.c (40mA)
ALARM OUTPUT	1 x voltage free change over contact: Max. rating 24V 1A 30VA
RESPONSE TIME	> 20ms < 40ms
DWELL TIME	800ms
HORIZONTAL ADJUSTMENT	+/- 15 degrees
VERTICAL ADJUSTMENT	+/- 15 degrees
TAMPER OUTPUT	1 x voltage free N/C contact: Max. rating 24V 1A 30VA
HEATER CURRENT	125mA
DIMENSIONS	160 x 146 x 137mm
SYNCHRONISATION MODES	Synchronous connection & Asynchronous connection in both modes Synchronising Link monitoring is incorporated as standard
TEMPERATURE RANGE	-20 °C +40 °C
WEATHER PROTECTION	IP66

### Product Description

Flameproof IR Transmitter & IR Receiver Enclosure  
 II 2 G Ex d op is IIC T6 Gb -20 °C ≤ Ta ≤ +40 °C, IP66  
 II 2 D Ex tb op is IIIC T80°C Db IP66

### Type

EMH29

### CERTIFICATION AND CONFORMITY

The electronic modules and associated housings are designed and assembled in accordance with ATEX directive 2014/34/EU

EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-31:2014, EN62368-1:2014

### Suitable for:

Group II Category 2 G Zone 1 & Zone 2 Hazardous areas (gases)

Group II Category 2 D Zone 21 & Zone 22 Hazardous areas (dusts)

In accordance with EC type examination certificate No. TRAC13ATEX0054X, a review of EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-31:2014 and Manufacturing Specification and Parts List-06109 EMH29-06108.

This product is a component system and is intended for inclusion within other equipment fitted by professional installers only. The unit must not be operated as stand alone equipment.

Where applicable, compliance with the EMC directive or Machinery Directive is the responsibility of the installer.



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