

# Certificate



Functional  
Safety

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**No.: 968/FSP 2034.00/20**

**Product tested** Fixed Gas Detector

**Certificate holder** RAE Systems (Shanghai) Inc.  
990 East Huiwang Road,  
Jiading District,  
Shanghai 201815,  
P.R. China

**Type designation** FGM-6X00X series  
Types: FGM-6100, FGM-6100S, FGM-6200, FGM-6200S, FGM-6300,  
FGM-6300S

**Codes and standards**

IEC 61508 Parts 1-7:2010	EN 50270:2015 + AC:2016
EN 50402:2017	EN 45544-1:2015 (in extracts)
EN 50271:2018	IEC 60079-29-1:2016 (in extracts)

**Intended application** The gas detector FGM-6X00X series complies with the requirements of the SIL 1 acc. to EN 50271, SIL 2 / SC 3 acc. to IEC 61508 and EN 50402 and can be used in combination with an external safety device for monitoring of hazardous flammable and toxic gas or vapour concentrations in a HFT=0 architecture up to SIL 2 and in a HFT=1 architecture up to SIL 3.

The gas detector FGM-6X00X series also fulfills the metrological requirements of EN 45544-1 - chapter 5.4 and IEC 60079-29-1 - chapter 5.4.

**Specific requirements** The instructions of the associated Safety Manual, User Manual and Quick Start Guide shall be considered. Details for the use in safety functions can be found on the Appendix of this certificate.

Valid until 2025-09-28


The issue of this certificate is based upon an examination, whose results are documented in Report No. 968/FSP 2034.00/20 dated 2020-09-28.

This certificate is valid only for products which are identical with the product tested.

**TÜV Rheinland Industrie Service GmbH**  
Bereich Automation  
Funktionale Sicherheit

Köln, 2020-09-28

Certification Body Safety & Security for Automation & Grid

  
Dipl.-Ing. (FH) Wolf Rückwart