

Safety Integrity Level [S.I.L.] Declaration

In accordance with ISO / IEC 17050-1:2004

We the undersigned declare under our sole responsibility that the product to which this declaration relates have been independently assessed and found to conform to the requirements of IEC 61508:2005.

Conformity has been derived from a combination of failure mode and effect analysis [FMEA] and proven in use returns data, in respect of Safe Failure Fraction (SFF) the unit has been judged to be suitable for use, as specified below:

Reference No / Version

CroDoc 09 - 157

Product Description

Xgard Type 1 Toxic Fixed Point Gas Detector Head

Specific Standards

IEC 61508-1:2002

S.I.L. Level

2

Safety Manner

Simplex

Assessment Results

	Failure Rate ¹	MTBF ² yrs	Availability %	PFD ³	SFF ⁴ %	S.I.L.
Failure to Respond to Lower Limit	1.6				88	2
Spurious Indication	1.5					
Total Failure Rate	3.1	37	99.91%	8.4 x 10 ⁻⁴		

Assessment Body

Technis
26 Orchard Drive
Tonbridge, Kent TN10 4LG
Report number: T379
Issue date: 5th Feb 2008

Signatory

Signature:



Name & Position: Stefan Kukula, Technical Director

Date: 19th January 2009

Crowcon Detection Instruments Ltd

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1. - Per Million Hours

2. - Mean Time Between Failures