

1 **UNITED KINGDOM CONFORMITY ASSESSMENT**
2 **UK TYPE EXAMINATION CERTIFICATE**

3 **Product Intended for use in Potentially Explosive Atmospheres**
4 **UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

5 Type Examination Certificate Number: **ExVeritas 21 UKEX 0763X** Issue: **0**
6 Product: **MSD2 Micro-set Sphere Detector**
7 Manufacturer: **HALL Engineering Services Ltd.**
8 Address: **Hall House, Hayfield Close, Dronfield, Derbyshire, S18 8RP, United Kingdom**

9 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

10 ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

11 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:


EN IEC 60079-0: 2018 **EN 60079-1: 2014**

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

12 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

13 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

14 The marking of the equipment shall include the following:

 II 2 G Ex db IIC T6 Gb T_a -40°C to +75°C

On behalf of ExVeritas



S Clarke CEng MSc FIET
Managing Director



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Schedule

13 Description of Product

The MSD2 Micro-Set Sphere Detector comprises a detector tube containing an encapsulated reed switch, which is rated up to 2A at 250VDC. The detector tube is fitted into a housing, referred to as a top housing, which is itself mounted to a separate housing which is comprised of three main components: a lower detector housing, detector plunger, and spring. These three parts are non-electrical components employed to facilitate the mounting of the detector and do not form part of the protection of the equipment.

The lower detector housing is fitted to the associated pipe wall and the top housing, containing the detector tube, sits in the detector plunger. The movement of detector plunger over the detector tube operates the reed switch. The lower and top housings are secured together by two M8 x 25 hexagonal socket head screws. The top housing must be fitted to a suitably approved Ex d terminal enclosure via the M25 threaded section of the top housing.

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3139A/1	2021-02-12	0	Initial issue of the Prime Certificate

14.2 Compliance Drawings:

Issue 0

Title:	Drawing No.:	Rev. Level:	Date:
Microset Detector Label Detail Top Housing	D 1234	3	2021-01
Hall Engineering Micro-set Label Detail	D1349	8	2021-01
Microset Detector Standard Model Sectional Arrangement	B1192	6	2003-06
Microset Detector Standard Model Exploded Assembly	D1757	1	2003-06
Pre-Assembly Details of Flameproof Sphere Detector "Micro-Set"	9691	K	2003-05-12
Micro-set Meter Prover Sphere Detector IOM Manual (8 pages)	HES-MSD2-IOM-R1	-	2021

- Denotes no information provided

15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

1. The sensor must be mounted to a suitably approved earthed metallic Ex db IIB Gb rated flameproof enclosure to facilitate connection of the sensor flying leads.
2. Under the scope of this approval the equipment has been subjected to Overpressure testing at a test pressure of 30 bar.
3. No repairs are permitted to the M25 threaded flameproof joint (external thread).

15.2 Routine tests

None

16 Essential Health and Safety Requirements (Regulations Schedule 1)

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1.

The manufacturer shall inform ExVeritas of any modifications to the design of the product described by this schedule.

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Issue **0**

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