

1 **Simple Apparatus System ATEX Conformity Certificate**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: ExVeritas 19SYS2152X Issue: 0

4 Equipment: VFS SA Multi Point Liquid Level Float Switch

5 Manufacturer: Deeter Electronics Limited

6 Address: Deeter House, Valley Road, Hughenden Valley, Bucks. HP14 4LW

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to. The assessments are recorded in ExVeritas project file number EXV2151.

8 The equipment has been assessed against the following Standard and found to comply:

BS EN 60079-25: 2010

9 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.

10 ExVeritas takes no responsibility for the validity of any information or data supplied by the manufacturer on which parts of the assessment may be based upon.

11 System Suitability:

See the Schedule for the System Description.



No. 8613

On behalf of ExVeritas

D. Henin
Certification Manager

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Schedule

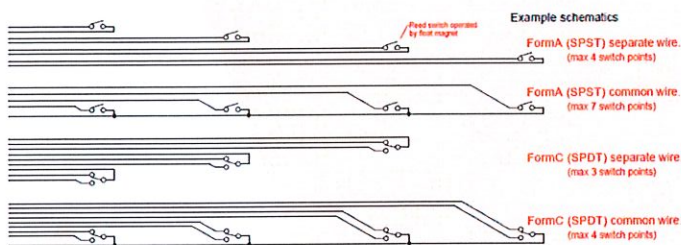
12 System Description

This certificate covers the VFS SA Multi Point Liquid Level Float Switch as Simple Apparatus when coupled with a suitably certified Intrinsically Safe Barrier.

The mechanical parts of the VFS SA do not contain any ignition sources even under a rare malfunction and the material of construction meet the requirements for ATEX CAT 1 use. Therefore, the non-electrical requirements of ATEX do not apply.

The VFS SA comprises of a stainless steel tube into which switch reed switches are mounted and external stainless steel hollow floats fitted with magnets are arranged around the tube.

Example Schematic.



The Reed Switch Ratings are:

Form A: 240V ac/dc, 1 Amp, 50 Watt

Form B: 50V ac/dc, 0.25 Amp, 10 Watt

The VFS SA can be consider for the following systems

Gas Atmospheres:

II 1 G IIC T3 Ga Tamb -20°C to +190°C

II 1 G IIC T4 Ga Tamb -20°C to +125°C

II 1 G IIC T5 Ga Tamb -20°C to +90°C

II 1 G IIC T6 Ga Tamb -20°C to +75°C

Dust Atmospheres:

II 1 D IIIC T200°C Da Tamb -20°C to +190°C

II 1 D IIIC T135°C Da Tamb -20°C to +125°C

II 1 D IIIC T100°C Da Tamb -20°C to +90°C

II 1 D IIIC T85°C Da Tamb -20°C to +75°C

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13 Descriptive Documents

13.1 Associated Report and Certificate History:

| Report Number | Cert Issue Date | Issue | Comment |
|---------------|-----------------|-------|--|
| R2151/A/2 | 2019.07.19 | 0 | Initial issue of the Prime Certificate |

13.2 Compliance Drawings:

Issue 0

| Title: | Drawing No | Issue | Sheets | Date |
|-----------------------|------------|-------|--------|------------|
| VFS SA (all versions) | D600803 | Rev 1 | 1 | 2019.05.03 |

14 Conditions of Certification

14.1 Special Conditions for Safe Use

When integrating the VFS SA into the intrinsically safe system It's the user's responsibility to produce a Descriptive System Document (DSD) in accordance with BS EN 60079-25 which considers the Intrinsically Safe Barrier and Cable parameters to ensure the system is compliant with BS EN 60079-25.

Cabling shall be selected in accordance to BS EN60079-14 (Clause 16.2.2) and also be suitable for the required service temperature.

The system shall be installed in accordance with the requirement of BS EN 60079-14.

Any cable terminations within the hazardous area shall be made in enclosures complying with EN60079-0 and providing a degree of protection of at least IP54 and shall bear the marking "Warning – Contains intrinsically safe circuits".

Terminations shall be made in compliance with the requirements of EN 60079-11. If non-intrinsically safe circuits are also within the enclosure a minimum of 50 mm clearance shall be employed between the intrinsically safe and non-intrinsically safe circuits.

The equipment and barrier shall be suitably bonded to a safety earth connection with a resistance of less than 1 ohm. The system installation shall be such that the circuit is bonded to a single reference point only.

The temperature of the process medium shall be considered as part of the ambient temperature range.

14.2 Conditions of Manufacture

None

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