

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM19US0147X
3. **Equipment:** Series D, Series B and Series X Vertical Magnetic Level Switches
(Type Reference and Name)
4. **Name of Listing Company:** Delta Mobrey Ltd
5. **Address of Listing Company:** Riverside Business Park
Dogflud Way
Farnham GU9 7SS
United Kingdom

6. The examination and test results are recorded in confidential report number:

3047282 dated 30th December 2013

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

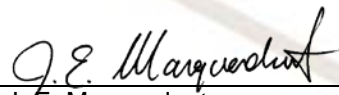
FM Class 3600:2018, FM Class 3615:2006, FM Class 3616:2011, FM Class 3810:2005,
ANSI/ISA 60079-0:2009, ANSI/ISA 60079-1:2009, ANSI/ISA 60079-26:2011, ANSI/IEC 60529:2004,
ANSI/ISA 61010-1:2004, ANSI/NEMA 250:1991

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10 **Equipment Ratings:**

Explosionproof for Class I, Division 1, Groups B, C and D, * Ta = -50°C to +60°C;
Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G, * Ta = -50°C to +60°C;
Flameproof for Class I, Zone 0**/1, AEx d IIC, * Ta = -50°C to +60°C; Type 4, IP66

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

26 August 2019

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



US Certificate Of Conformity No: FM19US0147X

11 The marking of the equipment shall include:

Class I, II, III, Division 1, Groups B, C, D, E, F and G

Class I, Zone 0/1, AEx d IIC

T6...T1 Ta = -50°C to +60°C

Type 4, IP66

12 **Description of Equipment:**

General – The Series D, Series B and Series X Vertical Magnetic Switches are used for industrial and process control. The switches consist of a float attached to a sheathed permanent magnet which rises and falls with changing liquid levels. The magnet is located within a pressure tube which, in turn, is located within the equipment enclosure. The switch mechanisms are located within the equipment enclosure adjacent to the pressure tube. Switching is achieved with a three-magnet system. Vertical movement of the float magnet in the pressure tube actuates the secondary (switch) magnet as well as a tertiary (latching) magnet which keeps the secondary magnet latched. This allows for the float magnet to continue on and actuate other switch mechanisms at other levels. The switch mechanisms, once actuated, cannot reset until the float magnet come back down and actuates the individual mechanisms again. Units consist of a threaded cover and base. All bases contain one or two threaded entries available in metric and NPT sizes.

Ratings – The series D, Series B and Series X Vertical Magnetic Level Switches are intended for use in an ambient temperature range of -50°C to +60°C. The pressure tube is rated for process pressures up to 1480psi (102 bar) at process temperatures from -50°C to +400°C.

abcdeE5fghijkl. Vertical Magnetic Level Switches.

Type 4;IP66;

a = Vertical level control D, B or X.

b = Process flange material A to Z (one character).

c = Float/displacer size 10 to 99 (two digits).

d = Operation F or D.

e = Switch enclosure size R or S.

f = Switch enclosure material A, G, I or S.

g = Enclosure entry size A, B or X.

h = Number of switches 1, 2, 3 or 4.

i = Switch type D, P, X or H.

j = Number of switch contacts 4 or 8.

k = Process connection or chamber style (up to four alphanumeric characters).

l = Options not affecting safety (up to 26 alphanumeric characters).

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13 Specific Conditions of Use (Applicable only to *abcdeE5fghijkl* model):

- 1) *The equipment temperature code is determined by process temperature according to the table below. T3 is not applicable to Class II, Group G. T2 and T1 are not applicable to Class II, Groups E, F and G

Temperature Code	Process Temperature	Exclusions
T6	-50°C to +80°C	
T5	-50°C to +95°C	
T4	-50°C to +130°C	
T3	-50°C to +195°C	Not for Class II, Group G
T2	-50°C to +295°C	Not for Class II, Groups E, F and G
T1	-50°C to +400°C	Not for Class II, Groups E, F and G

- 2) ** The equipment can be installed in the boundary wall between an area of Class I, Zone 0 and the less hazardous area Class I, Zone 1. In this configuration, the process connection is installed in Class I, Zone 0, while the enclosure is installed in Class I, Zone 1

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
30 th December 2013	Original Issue.
26 th August 2019	<u>Supplement 1:</u> Report Reference: RR219930 dated 26 th August 2019. Description of the Change: Certificate transferred to Delta Mobrey Ltd and certificate format updated. Model abcdeG5fghijkl has been transferred to Ordinary Location Certificate FM19NUS0006

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