



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 21UKEX1507X** Issue: **0**

4 Product: **Mobrey Flameproof Horizontal Float Switch (Series S2**).**

5 Manufacturer: **Delta Mobrey Limited**

6 Address: **Riverside Business Park
Dogflud Way
Farnham
Surrey, GU9 7SS
United Kingdom.**

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

8 CSA Group Testing UK Limited, Approved Body number 0518, 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), 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. The examination and test results are recorded in the confidential reports listed in Section 14.2.

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

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-26:2015

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK 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.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:



II 1/2 G

Ex db IIC T6...T1 Ga/Gb (-20°C ≤ Tamb ≤ +60°C)

Ex db IIC T6...T1 Ga/Gb (-60°C ≤ Tamb ≤ +60°C)

Signed: J A May

Title: Director of Operations



**UKUK
CANI**

CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
This certificate and its schedules may only be reproduced in its entirety and without change

Certificate No. CSAE21UKEX1507X

DQD544.21 Issue 2 (2021-04-23)

Page 1 of 4

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX1507X

Issue 0

13 DESCRIPTION OF PRODUCT

The product consists of a cast aluminium alloy, aluminium bronze, gunmetal or stainless steel enclosure/lid and a stainless steel (or other pressure grade metal) fork diaphragm. The enclosure/lid and enclosure/fork diaphragm interfaces both form a cylindrical flamepath. Three M6 x 25 hexagonal socket head screws and four M5 x 16 hexagonal socket head screws secure the enclosure/lid and enclosure/fork flange flamepaths respectively. The product minimum wall thickness is 3.00 mm except for the base of drive screw holes in the enclosure/lid, which are 2.3 mm. The product is intended to monitor the liquid level inside a vessel. Inside the flameproof enclosure is a microswitch based switching mechanism with an integral magnet. The enclosure body supports an external float, which also contains an integral magnet. The float unit activates the switch via the interaction of the two magnets.

Design options

§ Multiple mounting flanges, these are outside the flameproof envelope and thus do not directly affect the products flameproof characteristics. All options are detailed in the product instruction manual.

§ Multiple internal switches as detailed below:

Type D switches			
Rating	A.C.	D.C. Inductive	D.C. Resistive
Max voltage	440	240	240
Max current	8.0* *max current above 210°C is 5.0 A	1.0	2.0
Max power	2000 VA	35 Watts	70 Watts
Power factor	0.4 min	-	-
Time constant	-	40 ms max	-

Type D6, H6 & B6 switches			
Rating	A.C.	D.C. Inductive	D.C. Resistive
Max voltage	440	240	240
Max current	5.0	1.0	2.0
Max power	2000 VA	35 Watts	70 Watts
Power factor	0.4 min	-	-
Time constant	-	40 ms max	-

Type P & P6 switches (These switches have the same electrical configuration as their respective D and D6 versions. However, the ratings are greatly reduced in order to protect the plated contacts, the plating may be permanently damaged if this insert is used to switch circuits above the following limits.)	
D.C. Inductive	D.C. Resistive
24 V 2mH/200mA 24 V 750 mH/10mA	300 V 12 mA 24 V 250 mA



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

**CSAE 21UKEX1507X
Issue 0**

§ Multiple float mechanisms, these are outside the flameproof envelope and thus do not directly affect the products flameproof characteristics. All options are detailed in the product instruction manual.

§ The product may be fitted with up to 4 line monitoring, wirewound resistors with a maximum rating of 2.5 W de-rated to 0.83 W maximum each.

The product description includes the following applicable amendments, only amendments directly applicable to UKCA certification have been included in this list.

The amendments are numbered to include a reference to the previous ATEX variation at which these were introduced.

4a To permit the use of alternate stainless steel drive screws for securing the product name plate.

4b The introduction of Nickel or Tin plating to the external component surfaces of components manufactured from gunmetal.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	30 November 2021	R80097231A	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The product can utilise different types of fasteners. Therefore, replacement fasteners, when required, shall be obtained from the manufacturer.

15.2 When the product is fitted with end of line resistors, the cable entry temperature will exceed 70°C; therefore, suitably selected cable shall be used.

15.3 When the float is made from a non-metallic material, the user shall ensure that the material is suitable for the application.

15.4 No maintenance or repair of the flameproof enclosure is permitted.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX1507X
Issue 0

17 PRODUCTION CONTROL

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders
- 17.2 The enclosures that are marked with a minimum ambient temperature of -60°C shall be subjected to a routine overpressure test of 20.55 bar for at least 10 s, as required by clause 16.1 of EN 60079-1:2014. There shall be no permanent deformation or damage to the enclosure.
- 17.3 Each enclosure partition wall shall be subjected to a type overpressure test equal to $1.5 \times P_{\text{RATED}}$ applied for 1 minute without any visible leakage or damage to the enclosure (where P_{RATED} is the maximum process pressure of the product). In addition, if the maximum process temperature equipment is considered to affect the strength of the product, this test shall be conducted at that temperature.
- 17.4 The product instructions shall ensure that the float mechanism is installed in such a way to prevent any damage due to impact or ignition source due to friction.
- 17.5 The manufacture shall ensure that the appropriate label including the warning, **WARNING ALLOW 4 MINUTES AFTER ISOLATION BEFORE REMOVING COVER**, is fitted when the product is fitted with end of line resistors. In addition, the selection of cable shall be dealt with in the instructions to ensure the appropriate temperature rated cable is used by the user/installer.
- 17.6 The manufacturer shall ensure that stainless steel fasteners are fitted for -60°C applications.
- 17.7 The manufacturer shall take all reasonable steps to ensure that the user/installer complies with the Specific Conditions of Use.



**UK UK
CANI**



Certificate Annexe

Certificate Number: CSAE 21UKEX1507X
Product: Mobrey Flameproof Horizontal Float Switch (Series S2**).
Manufacturer: Delta Mobrey Limited

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
71097/981	1 of 1	AF	06 Sep 17	General Assembly
71097/996	1 of 1	AH	06 Sep 17	Certification Label - ATEX
71097/997	1 of 1	AF	08 Jan 16	Line monitoring resistors - ATEX
71097/1247	1 of 1	1	20 Sep 07	Switch Ratings
71097/1524	1 of 1	A	10 Nov 21	S2** Horz Float Switch UKCA Ex Certification



UKUK
CANI