



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 21UKEX1183X** Issue: **0**

4 Product: **Level Switch Liquiphant, model FTL41, FTL51B, FTL62 and FTL64 (and OEM versions OFTL41, OFTL51B, OFTL62 and OFTL64)**

5 Manufacturer: **Endress+Hauser SE+Co. KG**

6 Address: **Hauptstrasse 1  
79689 Maulburg  
Germany**

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 60079-7: 2015 + A1: 2018
EN 60079-11: 2012	EN 60079-26: 2015	EN 60079-31: 2014

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:

Refer to Schedule

Name:  
Title: Director of Operations



**UKUK  
CANI**

Certificate No. CSAE21UKEX1183X  
CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK  
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## SCHEDULE

### UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX1183X  
Issue 0

#### Marking



- II 1/2G or 2G Ex db IIC T6...T1 Ga/Gb or Gb
  - II 1/2G or 2G Ex db eb IIC T6...T1 Ga/Gb or Gb
  - II 1/2D Ex ta/tb IIIC Tx °C Da/Db
  - II 2D Ex tb IIIC Tx °C Db
  - II 1G, 1/2G or 2G Ex ia IIC T6...T1 Ga, Ga/Gb or Gb
  - II 1/2G or 2G Ex db ia IIC T6...T1 Ga/Gb or Gb
  - II 1/2D or II 2D Ex ia IIIC Tx °C Da/Db or Db
- Ambient temperature depends on type designation of product, refer to Annexe 2 for full list.

#### 13 DESCRIPTION OF PRODUCT

Liquid Level Switches Liquiphant, types FTL41, FTL51B, FTL62 and FTL64 (and OEM versions OFTL41, OFTL51B, OFTL62 and OFTL64) for use in explosive atmospheres caused by the presence of combustible gases, fluids, vapours or dusts, directly detect a liquid level by means of a symmetrical vibrating fork. The different electronic inserts in the transmitter enclosure, convert the fork frequency into an electrical signal.

The Liquid Level Switches Liquiphant are used for the measurement of the density or concentration of a process fluid, if provided with the electronics insert type FEL60D and connected to the Endress+Hauser Interface type FML621.

The enclosure is either a single electronics compartment version made of plastic, aluminium or stainless steel or a dual compartment version made of aluminium providing a separate electronics and a terminal compartment. The stainless-steel sensor is directly fitted to the enclosure.

Optionally the electronics compartment can be equipped with either a Bluetooth or an LED module in combination with a windowed cover.

For the type designation code, electrical or thermal data refer to Annex 2 to 4.

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.

- 1a Addition of a types FTL62 (coated (ECTFE, PFA non-conductive and conductive, Enamel) sensor version) and FTL64 (high temperature (HT) sensor version with sensor lengths up to 6 meter in type of protection Ex-d) (and OEM versions OFTL62 and OFTL64).
- 1b Addition of a -50 °C version with an alternative potting material.
- 1c Addition of new O-ring Material (FPM) at position Probe to Enclosure and 2nd-Source Suppliers for Blind Plug/Cable Gland Position.
- 1d Addition of an alternative BT module version VU121 (VA13-01 extended with model code VA13-02) with a closed battery lid to allow a T6 classification (T4 classification was based on cell temperature).
- 1e Change of electronic module FEL61 (not relevant for the type of protection (only used for Ex-d and Ex t).

**SCHEDULE**

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**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe 1.

**14.2 Associated Reports and Certificate History**

Issue	Date	Report number	Comment
0	28 July 2021	R80075184A	The release of the prime certificate.

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

15.1 The flameproof joints are not intended to be repaired.

15.2 The Liquid Level Switches Liquiphant shall be installed and maintained such that hazards caused by electrostatic discharge are excluded.

15.3 For Liquid Level Switches Liquiphant with an aluminium enclosure, when used as EPL Ga equipment, shall be installed in such a way that, even in the event of rare incidents, ignition sources due to impact and friction between the enclosure and iron or steel are excluded.

**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.

**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 Each welded sensor and each cemented windowed cover shall be routine tested with at least 3.6 MPa (1.5 times reference pressure).

17.3 For type of protection Ex ia a dielectric test has to be performed in accordance with EN 60079-11 clause 10.3 at a test voltage of 500 Vac for at least 60 seconds between both supply circuit and the enclosure.