

1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres
Directive 2014/34/EU**
3. EU-Type Examination Certificate Number: **EESF 19 ATEX 002X Issue 1**
4. Product: **Level sensor**
Certified types: **idOil-LIQ**
5. Manufacturer: **Labkotec Oy**
6. Address: **Myllyhaantie 6, FI-33960 Pirkkala, Finland**
7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
8. Eurofins Expert Services Oy, Notified Body number 0537, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in confidential report No. EUFI29-20006583-T1.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2018 **EN 60079-11:2012**
10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
12. The marking of the product shall include the following:



Espoo, 11.01.2021

Eurofins Expert Services Oy

Ilkka Riihimäki
Senior Expert

Kari Koskela
Senior Expert

This document is digitally signed.

13. **Schedule**

14. **EU-Type Examination Certificate EESF 19 ATEX 002X Issue 1**

15. **Description of Product**

idOil-LIQ is a piezoelectric vibration based level probe for fluids. The probe is equipped with a permanently connected cable with a maximum length of 15 m. The probe enclosure is a PVC tube with machined PVC end pieces. The sensor consists of a piezoelectric element mounted on a short anodized aluminum rod protruding 25 mm out of the tube. The maximum input values of the intrinsically safe circuit are (with 15 m cable):

Electrical data:

U_i = 16 V I_i = 80 mA P_i = 400 mW C_i ≤ 5.2 nF L_i ≤ 1.6 mH

The nominal voltage of the probe is U_n = 8 ... 16 V.

16. **Report Number**

EUF129-20006583-T1

17. **Specific Conditions of Use**

The allowed ambient temperature range is -30 °C ... +60 °C.
The probe is equipped with a permanent connected cable without connector.
The cable shall be installed according to the manufactures instructions.

18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

19. Drawings and Documents

Document title: (<i>Description in closures</i>)	Drawing No. + Rev:	Date:
TOIMINTASELOSTUS	DOC001413EX-3	4.12.2018
idOil-LIQ Type plate Printing	DWG000103EX-2	16.01.2019
Silk screen top side / Silk screen bottom side	LAY000021EX	25.11.2016
Top side drill drawing, Bottom side	PCB000021EX-2	28.12.2018
Vibrating level switch (Schematic)	SCH000027EX-2	30.1.2017
PCB SPECIFICATION	PCBS000020EX-1	18.12.2018
PART LIST (Electronics)	BOM000035EX-3	21.12.2018
*PART LIST (Mechanics)	BOM000039-5	15.12.2020
idOil-LIQ Kokoonpano ja päämitat(Assembly drawing)	DWG000112EX-1	20.07.2018

*) New or revised document

20. **Certificate History**

Issue	Date	Report No.	Comment
VTT 17 ATEX 005X	28.02.2017	VTT-S-00244-17	Prime certificate
EESF 19 ATEX 002X	28.02.2019	EUF129-19000404-T3	NB name changed from VTT Expert Services to Eurofins Expert Services. New certificate template. Safety related component changes. Alternative PCB introduced. Documents updated accordingly.
Issue 1	07.01.2021	EUF129-20006583-T1	Alternative piezo elements introduced.