

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 003X Issue 1**
4. Product: **Level sensor**
Certified types: **idOil-SLU**
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-T2.
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:

 **II 1 G Ex ia IIB T5 Ga**

Espoo, 11.01.2020

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 003X Issue 1**

 15. **Description of Product**

idOil-SLU is an ultrasonic based sludge or sand sensing probe. The probe is equipped with a permanently connected cable with a maximum length of 15 m. The probe is of robust construction. The enclosure is of AISI-316 and polypropylene plastic. The maximum input values of the intrinsically safe circuit are (with 15 m cable):

$$U_i = 16 \text{ V} \quad I_i = 80 \text{ mA} \quad P_i = 400 \text{ mW} \quad C_i \leq 4.0 \text{ nF} \quad L_i \leq 1.6 \text{ mH}$$

The nominal voltage of the probe is $U_n = 8 \dots 16 \text{ V}$.

 16. **Report Number**

EUFI29-20006583-T2

 17. **Specific Conditions of Use**

The allowed ambient temperature range is $-25 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$.
 The probe is equipped with a permanent connected cable without connector.
 The cable shall be installed according to the manufacturer's 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: (Description in closures)	Drawing No.:	Date:
TOIMINTASELOSTUS (Description of protection method)	DOC001411EX-2	31.1.2017
idOil-SLU Type plate Printing	DWG000102EX-2	16.1.2019
Silk screen top side / Silk screen bottom side	LAY000020EX	24.11.2016
Top side drill drawing Bottom side	PCB000020EX-1	28.12.2018
Transmitter (Schematic)	SCH000025EX-2	30.1.2017
PCB SPECIFICATION	PCBS000019EX-1	18.12.2018
PART LIST (Electronics)	BOM000034EX-3	28.12.2018
*PART LIST (Mechanics)	BOM000040-6	15.12.2020
idOil- SLU Kokoonpanon kuvaus ja päämitat (Assembly drawing)	DWG000114EX-1	20.07.2018

*) New or revised document

 20. **Certificate History**

Issue	Date	Report No.	Comment
VTT 17 ATEX 006X	28.02.2017	VTT-S-00245-17	Prime certificate
EESF 19 ATEX 003X	27.03.2019	EUFI29-19000404-T5	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	11.01.2021	EUFI29-20006583-T2	Alternative piezo elements introduced.