# EU-TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially explosive atmospheres Directive 2014/34/EU**

3. EU-Type Examination Certificate Number: **EESF 19 ATEX 001X**

4. Product: **Level sensor**

   Certified types: **idOil-OIL**

   **idOil-OIL-S**

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. EUFI29-19000404-T4.

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

   **EN 60079-0:2012/A11:2013** **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 IIA T5 Ga (idOil-OIL)**
    **II 1 G Ex ia IIB T5 Ga (idOil-OIL-S)**

Espoo, 21.03.2019

**Eurofins Expert Services Oy**

Ilkka Riihimäki
Expert

Kari Koskela
Expert

This document is digitally signed.





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13. **Schedule**

14. **EU-Type Examination Certificate EESF 19 ATEX 001X**

15. **Description of Product**

idOil-OIL and OIL-S are conductivity based level probes 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 two electrodes mounted on the end pieces of the enclosure. The maximum input values of the intrinsically safe circuit are (with 15 m cable):

**Ui = 16 V  Ii = 80 mA  Pi = 400 mW  Ci ≤ 5.2 nF  Li ≤ 1.6 mH**

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

16. **Report Number**

EUFI29-19000404-T4

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 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. + Rev:** | **Date:** |
|---|---|---|
| *TOIMINTASELOSTUS (*Description of protection method*) | DOC001414EX-4 | 4.12.2018 |
| *idOil-OIL, Type plate Printing | DWG000104EX-2 | 16.1.2019 |
| *idOil-OIL-S, Type plate Printing | DWG000107EX-2 | 16.1.2019 |
| Silk screen top side, Silk screen bottom side | LAY000022EX | 25.11.2016 |
| *Top side drill drawing, Bottom side | PCB000022EX-2 | 28.12.2018 |
| Conductivity level switch, (*Schematic*) | SCH000028EX-2 | 30.1.2017 |
| *PCB SPECIFICATION | PCBS000021EX-2 | 18.12.2018 |
| *PART LIST, (*Electronics*) | BOM000036EX-4 | 21.12.2018 |
| *PART LIST (OIL), (*Mechanics*) | BOM000037-6 | 20.12.2018 |
| *PART LIST (OIL-S), (*Mechanics*) | BOM000038-6 | 16.1.2019 |
| *idOil-OIL, Kokoonpanon kuvaus ja päämitat, (*Assembly drawing*) | DWG000113EX-1 | 20.07.2018 |
| *idOil-OIL-S, Kokoonpanon kuvaus ja päämitat,(*Assembly drawing*) | DWG000116EX-1 | 20.07.2018 |

**) New or revised document*

20. **Certificate History**

| **Issue** | **Date** | **Report No.** | **Comment** |
|---|---|---|---|
| VTT 17 ATEX 004X | 28.02.2017 | VTT-S-00243-17 | Prime certificate |
| EESF 19 ATEX 001X | 21.03.2019 | EUFI29-19000404-T4 | NB name changed from VTT Expert Services to Eurofins Expert Services. New certificate template. Safety related component changes. Alternative PCB introduced. Documents updated accordingly. |





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