



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX EESF 21.0017X** Page 1 of 4 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2021-06-22
Applicant: **Labkotec Oy**
Myllyhaantie 6, FI-33960 Pirkkala
Finland
Equipment: **Level measurement and control units idOil-20, idOil-30, idOil-D30, idOil-30 3G, idOil-30 Battery, idOil-30 Battery 3G and idOil Solar**
Optional accessory: N/A
Type of Protection: **Intrinsically Safe**
Marking: [Ex ia Ga] IIB
-30 °C ≤ T_{amb} ≤ +60 °C

Approved for issue on behalf of the IECEx
Certification Body:

Jenni Hirvelä

Position:

Senior Expert

Signature:
(for printed version)

Date:

2021-06-22

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins Expert Services Oy
Kivimiehentie 4
FI-02150 Espoo
Finland

 **eurofins** | Expert Services



IECEX Certificate of Conformity

Certificate No.: **IECEX EESF 21.0017X**

Page 2 of 4

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Manufacturer: **Labkotec Oy**
Myllyhaantie 6, FI-33960 Pirkkala
Finland

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[FI/EESF/ExTR21.0017/00](#)

Quality Assessment Report:

[FI/EESF/QAR19.0001/01](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX EESF 21.0017X**

Page 3 of 4

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Labkotec idOil series level measurement and control units are safe area associated apparatuses with level of protection [Ex ia] output for Gas Group IIB. The control units are intended for range of Labkotec digital level switches. The control unit can be operated with three level switches.

Model descriptions:

idOil-20	AC-version with standard enclosure, without LCD and WLAN
idOil-30	AC-version with standard enclosure, LCD and WLAN
idOil-D30	AC-version with DIN-enclosure, LCD and WLAN
idOil-30 3G	AC-version with standard enclosure and 2G/3G-modem, LCD and WLAN
idOil-30 Battery	DC-version with standard enclosure, LCD and WLAN
idOil-30 Battery 3G	DC-version with standard enclosure and 2G/3G-modem, LCD and WLAN
idOil Solar	12 VDC SOLAR-panel version, based on idOil-30 DC-versions

The user can configure the alarm levels and relay operation in the idOil-30 series models over WLAN connection. The two potential free relay contacts are intended for switching safe area equipment only. Supply voltage range for AC-versions is 100 - 240 V a.c., for Battery versions the range is 11 - 17 V d.c.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Allowed ambient temperature range is Tamb -30 °C to +60 °C.
2. The battery in idOil-30 Battery models shall be detached from the unit for charging.



IECEX Certificate of Conformity

Certificate No.: **IECEX EESF 21.0017X**

Page 4 of 4

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Equipment (continued):

Um = 250 V a.c. (for AC-versions, mains supply and relay contacts)

Um = 30 V d.c. (for DC-versions, supply voltage and relay contacts)

Output parameters:

Uo = 14,5 V

Io = 78 mA

Po = 367 mW

Co = 4,0 μ F

Lo = 16,7 mH

R = 243 Ω

Combined values for Co + Lo:

Co:

Lo:

1,65 μ F

1,7 mH

1,2 μ F

2,7 mH

1,1 μ F

4,7 mH

1,0 μ F

6,7 mH