



# 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](http://www.iecex.com)

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Issue 0 (2020-06-11)

Status: **Current** Issue No: 1

Date of Issue: 2024-01-08

Applicant: **LASER DIAGNOSTIC INSTRUMENTS AS**  
Kopliiranna 49  
Tallinn 11713  
Estonia

Equipment: **Remote Optical Watcher**

Optional accessory:

Type of Protection: **Ex d**

Marking: Ex db IIC T6 Gb, T<sub>amb</sub> -30°C to +60°C

Approved for issue on behalf of the IECEx  
Certification Body:

**Bjørn Spongsveen**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**DNV Product Assurance AS**  
Veritasveien 1  
1363 Høvik  
Norway





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Manufacturer: **LASER DIAGNOSTIC INSTRUMENTS AS**  
Kopliiranna 49  
Tallinn 11713  
Estonia

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 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

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 Reports:

[NO/PRE/ExTR20.0023/00](#)

[NO/PRE/ExTR20.0023/01](#)

Quality Assessment Report:

[NO/PRE/QAR20.0006/02](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Remote Optical Watcher (ROW) is autonomous non-contact sensor for detection of oil on water protected with flameproof enclosure type of protection. The system is classified as a class 3B light emission hazard and radiates UV LED light (not within the scope of IEC 60079-28:2015).

The system consists of a pulsed UV LED, receiving telescope, data control and processing electronics. The ROW is enclosed in a metallic enclosure made from stainless steel which consists of tube and two treaded covers (top and bottom flange). Bottom flange includes cemented glass window protected with guard.

The equipment is power supplied through the external cable which is certified as part of the product together with mounted Ex certified cable gland.

**Type designation** Type: ROW O23\*\*Exd and O45\*\*Exd

Applicable models: O2301E, O2302E, O4500E, O4501E and O4502E.

## Electrical data:

Supply voltage

ROW O23\*\*Exd: 10-30 VDC

ROW O45\*\*Exd: 12 VDC

## Routine tests:

Each enclosure has to be submitted to routine overpressure test (50.3 bar acc. Cl. 16 of IEC 60079-1:2014).

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Equipment must only be placed in areas with low risk of mechanical danger (ref clause 26.4.2 in IEC 60079-0).
2. Flameproof joints dimensions specified in the drawings are different than the standard requirements. Min 7 threads must be engaged for all threaded flameproof joints.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- minor technical changes
- changes in descriptive documentation