

# EU-Type Examination Certificate

Equipment or Protective System intended for use in potentially explosive atmospheres  
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 15 ATEX E 050 X**

Product: **UV Unit with Control Panel for Ballast Water Treatment System RayClean™ UV**

Manufacturer: **DESMI Ocean Guard A/S**

Address: **Lufthavnsvej 12, 9400 Norresundby, Denmark**

This product and any acceptable variation thereto are specified in the appendix to this certificate and the documents therein referred to.

DEKRA EXAM GmbH, Notified Body number 0158, 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 the confidential Report No. BVS PP 16.2106 EU.

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

**EN 60079-0:2012 + A11:2013 General requirements**  
**EN 60079-2:2014 Pressurized apparatus "p"**

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 appendix to this certificate.


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.

The marking of the product shall include the following:

 **II 2G Ex pxb [ia/ib] IIC T4 Gb**

DEKRA EXAM GmbH  
Bochum, 2016-06-09

  
\_\_\_\_\_  
Certifier

  
\_\_\_\_\_  
Approver

- 13 **Appendix**
- 14 **EU-Type Examination Certificate**

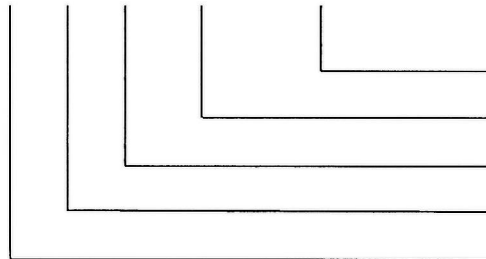
**BVS 15 ATEX E 050 X**

- 15 **Product description**
- 15.1 **Subject and type**

UV Unit with Control Panel Type RayClean™ UV

UV Type code:

UV-xxx-Cx-PGx-Distxx-FLOWxxxx



Flow: 200 – 2000 L/min  
 Distance: 2 – 25 meter  
 Purge configuration: A, B  
 Cable direction: L for left, R for right  
 UV configuration: ATEX or IECEx

- 15.2 **Description**

The UV Unit for Ballast Water Treatment System RayClean™ UV together with the UV Control Panel are part of a modular ballast water treatment system (BWTS) for the treatment of ballast water. Besides this UV Unit the system consists of a mechanical filter and further equipment (e. g. flow meter, temperature transmitter). All this equipment with different types of protection is separately certified. The associated Master Control Panel of the system is installed outside the hazardous area.

The UV unit and the UV Control Panel are designed in the type of protection Pressurization. The system type 6000, SIRA 09ATEX9337X is used to monitor the overpressure (pressurization with leakage compensation) and the purging for both enclosures simultaneously. The purging of the two enclosures (UV Unit and Control Panel) can be performed in two different versions, either serial (version A) or parallel (version B) with two outlet vents.

- 15.3 **Parameters**

- 15.3.1 **Electrical parameters**

Nominal voltage	3 x 230 V, 50/60 Hz
Current	55 A

- 15.3.2 **Pneumatical parameters**

Free volume	900 l
Minimum purge volume	4500 l
Minimum flow rate	Version A 560 l/min
	Version B 140 l/min
Minimum overpressure	1 mbar
Maximum overpressure	25 mbar

16 **Report Number**

BVS PP 16.2106 EU, as of 2016-06-09

17 **Special Conditions for Use**

17.1 The UV unit may only be operated when completely filled with water having a minimum flow of 30 m<sup>3</sup>/h and a maximum temperature of 45 °C. The flow and the temperature of the water shall be monitored.

17.2 The UV unit with its UV Control Panel may only be used with the associated Master Control Panel which shall be installed in a safe area.

18 **Essential Health and Safety Requirements**

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

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.