

EU-Type Examination Certificate Supplement 2

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

EU-Type Examination Certificate Number: **BVS 14 ATEX E 012 X**

Product: **AQUARIUS® Pressurized UV Reactor type UVX
AQUARIUS® Back Flushing Filter type FX**

Manufacturer: **Wärtsilä Water Systems Ltd**

Address: **Merchants House, Vanguard Road, Poole, Dorset, BH15 1PH, England**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 14 ATEX E 012 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification 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 14.2041 EU.

The Essential Health and Safety Requirements are assured in consideration of:

**EN IEC 60079-0:2018
EN 60079-2:2014**

**General requirements
Pressurized enclosure "p"**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for 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 px [ia/ib] IIC T4 Gb for UVX
II 2G IIC T4 for FX

DEKRA Testing and Certification GmbH
Bochum, 2021-05-27


Managing Director

13 Appendix

14 EU-Type Examination Certificate

BVS 14 ATEX E 012 X Supplement 2

15 Product description

15.1 Subject and type

Modular ballast water management system (BWMS) consisting of a pressurized UV reactor type UVX (type code H*UVX****) and a back flushing filter type FX (type code H*FX****)

Type code:

H 0 0 5 0 F X K - S P - 0 1 A - 1 7 1

Model Version No.

X Version X

Year of Release

XX Released in 20XX

Build Orientation

A Horizontal

B Vertical

S Special Arrangement

BWMS Voltage / Frequency

01 440v 60Hz

02 400v 50Hz

Special

SP Non Standard

Build Type

K Loose kit of parts
(Not skid mounted)

ATEX Class

X EX IIC T4

Kit/Module Type

UV UV Reactor

F Filter

FC Compact Filter

ECM EC Mixer

Total Rated Capacity (TRC) Flow.

0050 50m³/hr TRC

0080 80m³/hr TRC

0125 125m³/hr TRC

0180 180m³/hr TRC

0250 250m³/hr TRC

0300 300m³/hr TRC

0375 375m³/hr TRC

0430 430m³/hr TRC

0500 500m³/hr TRC

0550 550m³/hr TRC

0750 750m³/hr TRC

0850 850m³/hr TRC

1000 1000m³/hr TRC

1200 1200m³/hr TRC

1500 1500m³/hr TRC

1650 1650m³/hr TRC

2000 2000m³/hr TRC

2250 2250m³/hr TRC

2500 2500m³/hr TRC

3000 3000m³/hr TRC

3300 3300m³/hr TRC

4000 4000m³/hr TRC

15.2 Description

The AQUARIUS® UVX is a modular ballast water management system (BWMS) use for the treatment of ballast water and eradication of aquatic invasive species on cargo vessels. It consists of a pressurized UV reactor and a back flush filter.

The UV reactor in the type of protection Pressurization is designed in 3 different sizes with 6, 12 or 18 UV lamps. The system type 6000, DEMKO 07 ATEX 0705753X is used to monitor the overpressure (pressurization with leakage compensation) and the purging. Outside of the pressurized enclosure further equipment (e. g. flow meter, junction boxes, temperature switch) is installed which is necessary for the operation of the system. All this equipment with different types of protection is separately certified.

The back flush filter consists of the filter body (18 sizes) and additional equipment (motor with gearbox for filter back flush, DP switch, limit switches and junction boxes). All this equipment with different types of protection is separately certified.

Reasons for the supplement:

- Change of company name
- Change of address

15.3 Parameters

15.3.1 Electrical parameters

Nominal voltage

380-440 V, 50/60 Hz

Installed lamp power

16.2 – 94.3 kW

15.3.2 Pneumactical parameters

Free volume

62 / 39 / 17 l

Minimum purge volume

310 / 195 / 85 l

Minimum flow rate

200 l/min

Minimum overpressure

1 mbar

Maximum overpressure

250 mbar

16 Report Number

BVS PP 14.2041 EU, as of 2021-05-27

17 Special Conditions for Use

17.1 The UV reactor shall only be operated when completely filled with water.

17.2 The pressurized UV reactor type UVX and the back flushing filter type FX may only be used with the associated UVX power cabinet which shall be installed in a safe area.

18 Essential Health and Safety Requirements

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

19 Drawings and Documents

Drawings and documents are listed in the confidential report.