



**TYPE APPROVAL CERTIFICATE**  
No. **MAC057119XG**

**This is to certify** that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	<b>Water Monitoring System</b>
<i>Type</i>	<b>G6100</b>
<i>Applicant</i>	<b>Green Instruments A/S ERHVERVSPARKEN 29 9700 BRØNDERSLEV DENMARK</b>
<i>Manufacturer</i>	<b>Green Instruments A/S</b>
<i>Place of manufacture</i>	<b>ERHVERVSPARKEN 29 9700 BRØNDERSLEV DENMARK</b>
<i>Reference standards</i>	<b>Rules for the Classification of Ships - Part C - Machinery, Systems and Fire Protection - Ch.3, Sect.6, Tab.1. &amp; IMO Res. MEPC259(68).</b>

Issued in **HAMBURG** on **May 6, 2019**. This Certificate is valid until **May 5, 2024**

  
RINA Services S.p.A.  
**Giuseppe Russo**

This certificate consists of this page and 1 enclosure.



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G6100

### Product Description:

The G6100 module is a continuous in situ water monitoring system for wash water from exhaust gas cleaning systems. The unit consists of a water monitoring cabinet (either a pump cabinet- WMP or a pressure reduction cabinet - WMR ) and measuring modules such as G6110 for PAH , G6120/G6121 for Turbidity, and G6130 for PH/Temperature.

### Technical Data:

G6100			
WM Cabinet	Enclosure IP66		
Controller	V.2.X		
I/O Module	WAGO/750.xxx series		
Display	EXOR UniOP eTOP500 series		
Power Supply Module	Mean Well SDR-120-24		
Sensor Module	G6110 PAH	G6120/G6121 Turbidity	G6130 pH and Temperature
Brand/Type	TriOS/enviroFlu-HC	ABB / 4690 series ABB/ ATS430 series	MJK/ pHix Compact
Measuring Technique	UV Fluorescence	Nephelometry	Glass Electrode
Range	0-800 ug/l PAHphe Configurable	0-400 NTU/FNU Configurable	0 - 14 pH units
Accuracy	+/- 5% of Range	+/- 3% of FS	+/- 2% of FS Fully Temperature Compensated

### Reference Documents:

- Drawing : 02313-CO : WM 10 - 2x Main Cabinet Component Overview - issued on 10-03-2015 and updated on 08-05-2015
- Drawing : 02313-IL-WXXAAA110038 - WM10 - 2x Main Cabinet
- Installation Layout - rev. C- issued on 20-05-2015
- Drawing : 02313-PI - WMM10/2x P&ID - issued on 05-05-2015
- Drawing : EL-Diagram\_29062015 issued on 16-01-2013
- Drawing : 02313+02314W-CP - WMM10/ 2x Pump Cabinet, Cable Plan - issued on 25-06-2015
- Drawing :WM1X & WM2X\_GI\_Electrical Drawing issued on 16-06-2015
- WM Operating Manual\_Version 2.1\_Jun 2015
- WM Installation Manual\_Version 2.1\_Jun 2015
- Performance Report Ver. 2.2 Dec 2014
- Environmental Report issued by SP Technical Research Institute of Sweden Electronics on 03-12-2014
- RINA Inspection Report 2015/X5/01/36 dated on 13-02-2015.
- Updated drawings & manuals and additional test reports filed for information under RINA dwg no. HMMC-13099

### Application Fields:

The G6100 Water Monitoring System may be used for the monitoring of water from exhaust gas cleaning system in accordance with IMO resolution MEPC.259(68) as amended.

### Acceptance condition:

An acceptance of this product on board ships and other units classed by the RINA is subject to the satisfactory outcome of testing as per RINA Rules.

### Remarks:

Installation requirements and manuals shall be observed as per MEPC.259(68) .  
Correct configuration and set up for each delivery to be tested during commissioning after installation.  
The WM cabinets shall be mounted on vibration dampers according to the manufacturer instructions  
Installation to be made in accordance with maker's specifications.  
This Certificate has replaced the previous Type Approval Certificate No. MAC114715XG/002

HAMBURG May 06, 2019



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