

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Radio Remote Control**

with type designation(s)

**GA 610 / GA 611 / GA 610-EX / GA 611-EX; Nova XL, Nova M, NOVA GA 609, 610, 611, GL, GR, RXS-2B, BMS-1b, BMS-2, RX 14-HL**

Issued to

**ABITRON Germany GmbH**  
**Langquaid, Bayern, Germany**

is found to comply with

**DNV GL rules for classification – Ships****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Temperature B****Humidity B****Vibration A****EMC B****Enclosure C, : Transmitter IP 65; Receiver IP 65 / IP 66**Issued at **Hamburg** on **2018-08-21**This Certificate is valid until **2023-08-20**.for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Marco Rinkel****Joannis Papanuskas**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



## Product description

|                     |                                                                                  |
|---------------------|----------------------------------------------------------------------------------|
| Operating Voltage:  | 12 ... 240 V AC/DC                                                               |
| Frequency:          | 400 ... 869 MHz                                                                  |
| Transmission Range: | Approx. 100 m                                                                    |
| Transmission Rate:  | 2400 / 4800 baud                                                                 |
| Transmitter:        | RF Output < 10mW                                                                 |
| Output:             | Relay max. 8 A / 250 V; analogue max. 3 A / 30 V DC                              |
| TX:                 | Hammingdistance 4 and Emergency-Stop-Relay                                       |
| GA 609:             | Single-Failure-Safety                                                            |
| GA 610 and 611:     | Two-Failure-Safety; Selftest of soft- and hardware during start-up and operation |
| GA 611:             | Double evaluation of all commands with crossover monitoring and comparison       |
| BMS-1b:             | Transmitter and Receiver                                                         |
| RXS-2b:             | Transmitter and Receiver                                                         |
|                     | Power Supply Nominal 12 / 24 V DC                                                |

Transmitter Encoder Unit Nova XL with Coder 11.1

Classification of the certified safe type equipment (see also Application/Limitation):  
Transmitter and Battery : II 2 G EEx ia IIB T4 or II 2 G EEx ia IIC T4 or I M2 EEx ia I;  
Receiver : II 2 G EEx edmq ia/ib [ia/ib] T6, T5, T4; II 2 G/D EEx de [ia/ib] IIC T6, T5

Software Versions: NA-2DE, 6.3, HE/6.2

## Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Equipment for installation and/ or use outside a distance of 5 m from a standard or a steering magnetic compass.

The Type Approval covers components listed under Product description. When the components are used in applications to be classed by DNVGL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

### Product certificate

If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

### Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV GL for evaluation and approval. Major changes in the software are to be approved before being installed.

## Type Approval documentation

See ANNEX

Job Id: **262.1-028782-1**  
Certificate No: **TAA00001XG**

### **Tests carried out**

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

### **Marking of product**

The products to be marked with:

- model name
- manufacturer name
- serial number

### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

Job Id: **262.1-028782-1**  
Certificate No: **TAA00001XG**

## **ANNEX**

### **Type Approval documentation** (hidden)