DNV·GL

Certificate No:
TAA00001R0

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Sound Signal Appliances (Whistle/ Bell & Gong)

with type designation(s)
Serie PATROL and PYRA

Issued to
Pfannenberg GmbH
Hamburg, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**C (IP66)**

Issued at **Hamburg** on **2018-05-29**
This Certificate is valid until **2023-05-28**.
DNV GL local station: **Hamburg**

Approval Engineer: **Didier Girardin**

for **DNV GL**

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

The alarm device family "PATROL" and "PYRA" consist of acoustical and visual components in different performance classes. "PYRA" grouped the visual devices and "PATROL" grouped the acoustical devices as well as the combination of both. The sounders are designed in 3 sizes at which in size 3 are 2 performance classes possible.

Ingress protection: IP66 (EN60529), type 4/4x

Software name 30300 P0-SWA-V-b (version 1.4); Test report VdS no. 110068-AU01+SW01 for the devices PA1, PA5, PA10, PA20 and PAX1-05.

PATROL: Sounder and combined devices: Item number: 233 aa bb c ddd

aa	**type**
10	PA 1: sounder (100dB)
11	PA X 1-05: sounder beacon combined device (100dB/ 5J)
50	PA 5: sounder (105dB)
51	PA X 5-05: sounder beacon combined device (105dB/ 5J)
52	PA X 5-10: sounder beacon combined device (105dB/ 10J)
60	PA 10: sounder (110 dB)
61	PA X 10-10: sounder beacon combined device (110dB/ 10J)
62	PA X 10-15: sounder beacon combined device (110dB/ 15J)
70	PA 20: sounder (120 dB)
71	PA X 20-10: sounder beacon combined device (120dB/ 10J)
72	PA X 20-15: sounder beacon combined device (120dB/ 15J)

bb	**rated voltage**
10	230V AC
15	115V AC
30	24V AC
63	PA1 + PA5: 10V – 57V DC, PA10 + PA20: 10 – 60V DC
64	PA10 + PA20: 95V – 265V AC
70	48V DC
80	24V DC
85	12V DC

c	**signal color**
0	none
1	clear
2	white
3	yellow
4	orange
5	red
6	green
7	blue

ddd	**design GL**
001	housing RAL3000 (red), standard
038	spezial tones
056	housing RAL 7035 (grey)
057	option –SSM, housing RAL 7035 (grey)
058	option –SSM
059	option –SSM, housing RAL 9003 (white)
060	housing RAL 9003 (white)

Position ddd can obtain differing number for fitting variations based on above coded items.

PYRA: GL beacon: Item number: 215 aa bb c ddd

aa	**Type**
10	PY X-S-05: Xenon beacon (5J)
bb	**rated voltage**
10	230V AC
15	115V AC
30	24V AC
70	48V DC
80	24V DC
85	85 12V DC
c	**signal color**
1	clear
2	white
3	yellow
4	orange
5	red
6	green
7	blue
ddd	**design GL**
001	housing RAL3000 (red), standard
056	housing RAL 7035 (grey)
057	option –SSM, housing RAL 7035 (grey)
058	option –SSM
059	option –SSM, housing RAL 9003 (white)
060	housing RAL 9003 (white)

Position ddd can obtain differing number for fitting variations based on above coded items

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

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 Excertificate issued by a notified/recognized Certification Body

Requirements according Resolution A.1021(26) Code on Alerts and Indicators shall be observed.

Type Approval documentation

See ANNEX

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.
EN 50130-4:1995 + A1:1998+A2:2002+Corr. 2003, EN 54-3:2001+A1:2002+A2:2006, EN54-23:2010

Marking of product

The products to be marked with:
- manufacturer name
- model name
- production order number
- power supply ratings

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

ANNEX

Hidden