



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00001R0
Revision No:
1

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 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.

Location classes:

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

Issued at **Hamburg** on **2023-11-13**

for **DNV**

This Certificate is valid until **2028-11-12**.

DNV local unit: **Hamburg**

Approval Engineer: **Heinz Scheffler**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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

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

Software name 30300 P0-SWA-V-b (version 1.4)

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 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 Ex-certificate issued by a notified / recognized Certification Body

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

Type Approval documentation

Test Reports & Documents: Document Overview TAA00001R0, Draw.-no.:30303-098, dated 17.11.2023

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

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