DNV·GL

Certificate No:
TAF00000WK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Water and Foam Monitor

with type designation(s)
PPC24, PPC48

Issued to
Jiangsu Huayan Marine Equipment Co., Ltd.
Jiangsu, China

is found to comply with
DNV GL class programme DNVGL-CP-0213 – Type approval – Fire safety equipment
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations
DNV GL rules for classification – Ships

Application :

The foam monitors are approved for fixed deck foam systems as per FSS Code Chapter 14. Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2018-04-23**
This Certificate is valid until **2023-04-22**.
DNV GL local station: **Nanjing**

Approval Engineer: **Andrii Pishchanskyi**

for **DNV GL**

Olaf Drews
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.

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Product description

The foam monitors are approved for fixed deck foam systems as per FSS Code Chapter 14. The main components and their material are as follows:

Component	Material
Lower connector	A6061 (aluminium alloy)
Lower tee	ZL101-T6 (aluminium alloy)
Upper tee	ZL101-T6 (aluminium alloy)
Nozzle body	ZL101-T6 (aluminium alloy)

The product parameters are as follows:

Parameter	PPC24	PPC48
Flowrate [l/s]	24	48
Working pressure range [MPa]	0.4 up to 0.8	0.4 up to 0.8
K-factor [l/(min*bar ^0.5)]	528 up to 542	1050 up to 1061
Minimum throw distance [m]	40	55
Minimum expansion ratio [ ]	6:1	6:1
Minimum 25% drainage time [min]	2.5	2.5
Vertical range of motion [°]	-45 up to 70	-45 up to 70
Horizontal range of motion [°]	360	360
Inlet flange nominal diameter	65	80

Application/Limitation

The foam monitors are approved for use with foam concentrates (as per MSC.1 Circ. 1312) with a mixing ratio of 3 %.

Each foam monitor shall be subjected to a hydrostatic testing at minimum 1.5 times the design pressure.

Each foam monitor shall be accompanied with:

1. Works certificate indicating materials used in the body and their mechanical properties;
2. Pressure test report.

The specific arrangement of the foam monitor, piping and control equipment is subject to approval in each case.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Tests carried out

Marking of product
The monitor is to be marked with name of manufacturer and type designation.

Periodical assessment
The DNVGL surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with the procedure described in the Class Programme DNVGL-CP-0338, Section 4.