



# NIPPON KAIJI KYOKAI

## CERTIFICATE

No. KB14ES267

THIS IS TO CERTIFY that NIPPON KAIJI KYOKAI did, at the request of Messrs. Autronica Fire and Security AS review the relevant documents submitted by the applicant for the following system and found that the system is compliance with the applicable provisions of the *International Convention for the Safety of life at Sea, 1974, as amended in 2000* and *IMO MSC/Circ.913 as amended by IMO MSC.1/Circ. 1387*. The Society accepts to apply this system to the vessels classed with the Society, except Japanese flag vessels.

Name of system	: Fixed Local Application Fire-Fighting System
Manufacturer	: Autronica Fire and Security AS
Product name	: FlexiFOG Lo-Flow M5 LP
Specification	: See the attachment

This certificate remains valid from 30 September 2013 until 29 September 2018, the system, the design or manufacture is changed or modified, or the instruction by the Society, whichever is earliest.

This certificate is issued at Tokyo on 29 October 2014.

NIPPON KAIJI KYOKAI

  
 T. Imamura  
 General Manager  
 Material and Equipment Department

Initial approval date : 30 September 2003

This Report is issued subject to the condition that it is understood and agreed that neither the Society nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Society or its Surveyors or in any entry in the Record or other publication of the Society or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

97. 11. 10000 (K)



Attached to Certificate No. KB14ES267

1. Application/Limitation

Type of nozzle	Max. horizontal spacing	Min. Vertical distance from protected object	Max. Vertical distance from protected object	Operating pressure	Water flow (L/min)
M5	3.0 m	0.5 m	8.0 m	4.0 bar	10.0
		8.0 m	14.5 m	9.0 bar	15.0

- Extinguishing medium; Fresh Water
- k-factor; 5.0 lpm/bar<sup>1/2</sup> ( using  $Q = k \times p^{1/2}$  )
- Drawings for arrangement and calculations for each vessel are to be submitted to the Society for approval, prior to installation onboard.

2. Documents

- "Application for Type approval, Project 1761, FlexiFOG LoFlow M5, Local Protection Water Mist System, IMO/MSC Circ. 913"  
Including:
  - Test report on nozzle head by Factory Mutual Research Corporation (Report No.- Project ID.3013524, 25 February 2002)
  - Test report on fire test by SINTEF (Report No.NBL10F01121, 5 September 2001)
  - Test report on fire test by SINTEF (Report No.NBL10F01135, 27 September 2001)

3. Degree of protection for electrical installations

The following electrical equipment are allowed to install in the area\* be effected by water mist when the fire-fighting system is operated.

- IP22 generators, motors and panels with cooled fan through air filter
- IP44 electrical equipment without cooled fans

Note \*: The word "area " means:

- Horizontally, within radiuses of the maximum allowable spacing between the nozzles.
- Vertically, from the level of nozzles down to the nearest deck or similar construction