

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Fire Detector**

with type designation(s)

FDK512BF, FDK541B-J, FDS512BF, - Smoke Detector**FDL529B-J, FDL529B-W-J - Heat Detector,****FDK581B - Smoke Detector****FDL569B, FDL569B-W - Heat Detector**

Issued to

Nohmi Bosai Ltd.**Chiyoda-ku, Tokyo, Japan**

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.****Location classes:**

Type	Temperature	Humidity	Vibration	EMC	Enclosure
FDK512BF, FDK541B-J, FDS512BF, FDL529B-J, FDL529B-W-J	A	B	A	B	B
FDK581B, FDL569B, FDL569B-W	A	B	A	B	Required protection according to the Rules to be provided upon installation on board.

This Certificate is valid until **2021-12-31**.Issued at **Høvik** on **2017-01-13**for **DNV GL**DNV GL local station: **Yokohama**Approval Engineer: **Nils Jarem**

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Odd Magne Nesvåg
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.

Job Id:
Certificate No: **TAA00000YS**

Product description

Type	Equipment	Mounting type	SW Version
FDK541B-J	Analogue Optical Smoke Detector	Exposed type	DK38A0
FDK581B	Analogue Optical Smoke Detector	Concealed type	
FDK512BF	Addressable Optical Smoke Detector	Exposed type	-
FDS512BF	Addressable Ionization Smoke Detector	Exposed type	-
FDL529B-J, FDL529B-W-J	Analogue Heat Detector	Exposed type	DL25A0
FDL569B, FDL569B-W	Analogue Heat Detector	Concealed type	

Application/Limitation

System application and location of detectors to be in accordance with relevant parts of DNV GL Rules.

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.

Type Approval documentation

Tests carried out

Relevant tests according to DNV Standard for Certification No. 2.4.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Job Id:
Certificate No: **TAA00000YS**

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