

# TYPE EXAMINATION CERTIFICATE

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**This is to certify:****That the Proportioners**

with type designation(s)  
**FireDos**

Issued to

**FireDos GmbH**  
**Wölfersheim, Germany**

is found to comply with

**DNV GL rules for classification – Ships**  
**DNV GL rules for classification – Yachts**  
**DNV GL rules for classification – Naval vessels**  
**DNV GL rules for classification – High speed and light craft**  
**DNV GL rules for classification – Inland navigation vessels**  
**DNV GL offshore standards**

**Application :**

**Approved for use as admixing apparatus (proportioners) for fire extinguishing additives (e.g. foam concentrates) in fixed fire extinguishing systems.**

Issued at **Hamburg** on **2016-11-15**

for **DNV GL**

This Certificate is valid until **2021-11-14**.

DNV GL local station: **Essen**

Approval Engineer: **Michael Kämpf**

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**Antje Fleischhauer**  
**Head of Section**

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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 Examination Certificate and not to the approval of equipment/systems installed.

## Product description

The FireDos proportioners are designed to mix liquid extinguishing agent additives (e.g. foam concentrates or gel-forming agents) to form a water-based fire extinguishing solution.

The main components of the FireDos proportioners are the water motor, proportioning pump, mechanical coupling, support frame, air bleed and pipework.

The proportioners are manufactured at the premises of FireDos GmbH, Wölfersheim, Germany.

## Application/Limitation

Models and Main Parameters of FireDos Proportioners	
Model designations	FD500, FD1000, FD1600, FD2500, FD4000, FD6000, FD8000, FD10000, FD15000, FD20000
Max. operating pressure	16 bar, special versions 25 or 40 bar
Max. water flow	Model related; 500 l/min (FD500) ~ 20000 l/min (FD20000)
Admixing rates, FM approved	1% or 3%
Admixing rates, possible range	Fixed or adjustable rates in the range 0.1% ~ 6%

For installation, operating, testing and maintenance, the manufacturer's instruction indicated in the FireDos Instruction Manual shall be observed.

## Type Examination documentation

- Manufacturer's instruction manual FireDos, file no. BEAN-043-06, dated 2014-04-25
- Set of data sheets for the various proportioner types issued by FireDos GmbH
- FM certificate of compliance, FM approvals class 5130, Id 0003048011 dated 2014-05-27
- FM certificate of compliance, FM approvals class 5135, Id 0003039305 dated 2011-06-06
- FM certificate of compliance, FM approvals class 5137, Id 0003039305 dated 2011-06-06
- FM approval report no. 3048011 dated 2014-05-27
- FM approval report no. 3039305 dated 2011-06-06
- FM approval report no. 3029243 dated 2009-09-09
- VdS test report no. WAL 06046 dated 2006-07-03
- Previous GL approval certificate no. 33438-06 HH issued 2011-10-25

## Tests carried out

Tested according to FM Approval Standards 5130, 5135 and 5137.

## Marking of product

The products are to be marked with the name of the manufacturer and type designation.

## Certificate Retention Survey

The DNVGL's 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.