DNV·GL

Certificate No:
TAP00001C6

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Pneumatic Actuator

with type designation(s)
NS 200, NS 270, NS 350, NS 405, NS 460, NS 515, NS 640 : Diaphragm Actuators for Control Valves

Issued to
Nakakita Seisakusho Co., Ltd.
Daito, Japan

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type	Design pressure
NS 200	2.0 bar
NS 270	3.0 bar
NS 350	3.0 bar
NS 405	3.0 bar
NS 460	3.0 bar
NS 515	3.0 bar
NS 640	3.0 bar

Issued at **Hamburg** on **2018-06-28**
This Certificate is valid until **2023-06-27**.
DNV GL local station: **Kobe**

Approval Engineer: **Christian Kaemmer**

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

Diaphragm actuator consisting of main parts: Diaphragm-casing, diaphragm-plate, diaphragm, yoke, actuator spring, spring adjustor, indicator plate, stopper, actuator stem.

Spring-opposed diaphragm actuators position the valve-plug in the valve.

Modes: direct action, reverse action, double action.

The diaphragm actuators of type NS are type-approved to provide operation of control valves.

Size Range	Operating Air Pressure	Valve Lift
200	0.2 bar to 1.0 bar	13 mm
270	0.4 bar to 2.0 bar	15 mm
350	0.4 bar to 2.0 bar	35 mm
405 to 640	0.6 bar to 2.2 bar	100 mm

Type Approval documentation

Marking of product

For traceability to this type approval, each actuator is to be marked with:

Manufacturer's name
Type, Size
Maximum working pressure M.A.W.P.

Periodical assessment

For retention of the type approval certificate periodical assessments shall be carried out at production places by DNVGL surveyor.
The objective of the periodical assessment is to verify that the design and production conditions for the type approval have not been altered.

Main scope of the assessment:
- verification of the production and quality control system
- review of quality control documentation of recent deliveries
- review of drawings in production to verify any design changes which may have an impact on data specified in the type approval certificate, performance and range of application
- verification of the product marking

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.