

TYPE APPROVAL CERTIFICATE

Certificate no.: **TAP00001CE** Revision No: **3**

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that the Pneumatic Actuator

with type designation(s) **DFPD**

issued to

Festo SE & Co. KG

Esslingen am Neckar, Baden-Württemberg, Germany

is found to comply with

DNV 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. Dsgn. press./Torque 8 bar / see manufacturer's instruction

Issued at Hamburg on 2024-08-22

This Certificate is valid until 2029-08-21.

for **DNV**

DNV local unit: Augsburg

Approval Engineer: Ana Cristina Do Carmo Insfran

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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Job ID: **262.1-026958-3 TAP00001CE**

Revision No: 3

Product description

Pneumatic quarter turn actuators single or double acting to be used for actuating and control of butterfly valves, ball valves and air dampers.

Optional additional mounting parts such as position sensors, solenoid valves, positioners are excluded from this type approval.

DFPD Size 10 to Size 2300

Technical data

Air supply pressure max. 8 bar

Operating temperature range -50°C to + 150°C [depending on actuator material]

Operating medium Filtered compressed air, dry or lubricated, according to ISO 8573

Swivel angle From 0° to $180^{\circ} \pm 5^{\circ}$

Valve interface EN ISO 5211; VDI/VDE 3845 (NAMUR)

Torques Depending on actuator size and operating pressure,

see manufacturer's technical data sheet

Actuator materials

Actuator housing Aluminium alloy, EN AW-6063-T6

End cap Cast aluminium
Piston Cast aluminium
Drive shaft Steel, Stainless steel

Application

Approved for application and mounting on remote operating butterfly valves and ball valves.

The selection of a suitable actuator for a specific valve type including operation and service conditions shall be carried out according to the technical instructions of the manufacturer.

Limitation

Actuators with housing cap and piston fabricated of aluminium shall not be mounted on valves installed in piping systems and areas subjected to potential hazards caused by fire.

Type Approval documentation

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Tests carried out

Test Standards:

DNV Pt. 4 Ch.6 - Piping systems; Pt. 4 Ch.7 - Pressure equipment

- Pressure test witnessed by DNV Surveyor.
 Test pressure in amount of 1,5 times the design pressure
- Functional test

Marking of product

For traceability to this type approval the products are to be marked with:

- Manufacturers name or trademark
- Type code
- Serial No.
- Part No.
- Operating pressure

Places of manufacturing

Via San Lorenzo 70 25069 Villa Carcina (BS) Italy

Festo India Private Limited

Plot No. 225, 226 and 227, Bommasandra industrial Area, Off. Hosur Road, Bangalore 560099, India

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with. Refer to DNV CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check
the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE

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