DNV·GL

Certificate No:
TAP00001Z8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Quick Closing Valve System

with type designation(s)
FSV AkkuTEC II

Issued to
Armaturen-Wolff Friedrich H. Wolff GmbH & Co. KG
Hamburg, Germany

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

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2019-12-13**
This Certificate is valid until **2024-12-12**.
DNV GL local station: **Hamburg CMC**

Approval Engineer: **Hagen Markus**

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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Job Id: **262.1-030169-1**
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Product description

The quick closing valve system of type FSV AkkuTEC II consist of a control cabinet and quick closing valves provided with spring loaded actuators released by one or two solenoids.
Design of the quick closing valves according to type approval certificate TAP00001Z7.

Technical Data

Control cabinet

Power supply (primary)	115 - 230V AC, 50/60 Hz
UPS device AkkuTEC	Battery buffered - 24V
Power supply (back-up)	24V DC
Monitoring unit	LOGO! 24 RC with potential free alarm contacts
Rotary control switches with indicator light	1…n

Solenoids

Operation mode	closed-circuit principle, 100% ED
Power supply	24V DC
Electrical connection	connector GDM3011, Pg11, IP 65
Cable	3-wire (DNV GL type approved)

Application/Limitation

For the design of the quick closing valve system such as grouping of valves or providing of double solenoids valve actuators as well as the installation of the quick closing system the instruction "Operating Instruction Electric Quick-Closing valve system, AN 7.4-13" is to be observed. Regarding Quick-Closing valves the instruction "Operation Manual FSV, FSÖV, SSVF, AN 7.4-4".

Ambient temperature range: 0°C up to 55°C.
Maximum media temperature: 140°C

For ambient temperatures well above 55°C and media temperatures above 70°C additional cooling for the control cabinet respectively insulation of the valves solenoids is to be provided.

For application of the FSV AkkuTECII the requirements of flag state administration may have to be observed.

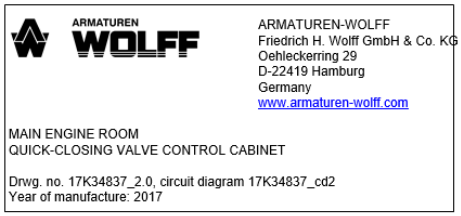
Type Approval documentation

Tests carried out

Vibration test, IP 55 test acc. to DIN EN 60529, Dry heat test (55°C, 16h)

Marking of product

Example



Periodical assessment

For retention of the Type Approval, a DNV GL 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 the Class Programme DNVGL-CP-0338, Sec.4.

End of certificate