

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Armaturen Wolff
Address	Friedrich H. Wolff GmbH & Co. KG, Oehleckerring 29, Hamburg, 22419, Germany
Type	Valves - General
Description	Flange spring loaded quick opening or quick closing valves of straight or angle type, standard compact or bellow-sealed design, either rope-, hydraulically- or pneumatically activated Flange spring-loaded quick-opening or quick-closing valves, electrically actuated
Trade Name	AW
Application	As quick closing and opening valves in marine.
Specified Standard	Lloyd's Register Rules and Regulations for the Classification of Ships, 2019
Ratings	see Appendix



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Additional Tests

Dust and water jet test for valve electr. release unit PRA 709 acc. DIN EN 60529 - IP55,
fire release function test for thermal link aligned to EN ISO 15541,
vibration test for valves and switch box

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. ENS 20431-07, Issue No. 3 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

TYPES AW 33005 to 34517 , DN 15 - 250
 AW 3320F to 3350F, DN 200 – 250
 AW 33075-TS to 33585-TS, DN 15 - 200

RATINGS Nominal diameter: DN 15 to 250
 Quick closing valves type number: AW 33 X Y Z (-TS)
 Quick opening valves type number: AW 34 X Y Z (-TS)

For X:	Body material:	Pattern:	Nom. Pressure:
0	Rg. 5 (2.1096)	straight	PN16
1	Rg. 5 (2.1096)	angle	PN16
2	GS-C25 (1.0619)	straight	PN40
3	GS-C25 (1.0619)	angle	PN40
4	GGG 40.3 (0.7043)	straight	PN16
5	GGG 40.3 (0.7043)	angle	PN16

For Y: 0 – manual actuation
 1 – (universal) hydraulic / pneumatic release
 2 – pneumatic release (only for classic design)
 7 – electric actuation single solenoid
 8 – electric actuation double solenoid

For Z: 5 – regular design, fire safe (only for quick closing valves)
 7 – bellows- sealed design (for quick closing and opening valves)
 F – classic design, fire safe (only for quick closing valves)

-TS: with thermal link (only for electric actuator)

Disc material : X20Cr13 or G-CuSn5ZnPb

