



Certificate no. TAI-FS-C-21-0047

WE HEREBY CERTIFY THAT

Product description 2-WAYS BOLTED TOP ENTRY TRUNNION MOUNTED BALL VALVE

Models SERIES A, B, C

Manufacturer DAFRAM S.p.A.
Via San Raffaele 1
I-20121 Milano (MI)

IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARDS

IEC 61508 Parts 1–7:2010

AS RESULT OF THE ASSESSMENT ACCORDING TO THE PROVISION SET OUT IN THE ABOVE-MENTIONED STANDARDS

Summary Report no. TAI-FS-R-21-0099

Expiry date 27.04.2024

Issue date 28.04.2021

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28.04.2021, Monte Roberto (AN)

Page 1 of 2

Ing. Crescenzo Di Fratta

Annex to certificate no. TAI-FS-C-21-0047

Type	A
HFT	0
Safety functions	1. Close / Open upon the demand of the actuation system 2. Close upon the demand of the actuation system, with inline tightness when in closed position
Mode of operation	Low Demand Mode

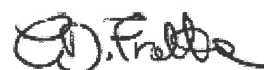
Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Self-relieving / Double piston effect - No PST	1	3,31E-08	0,00E+00	0,00E+00
Self-relieving / Double piston effect - With PST	1	2,98E-09	3,02E-08	0,00E+00
Self-relieving - No PST	2	5,13E-08	0,00E+00	0,00E+00
Self-relieving - With PST	2	2,11E-08	3,02E-08	0,00E+00
Double piston effect - No PST	2	4,25E-08	0,00E+00	0,00E+00
Double piston effect - With PST	2	1,23E-08	3,02E-08	0,00E+00

Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1_H:	Applied	Route 2_H:	Applied
	The product can be used in: <ul style="list-style-type: none"> • single channel configuration: <ul style="list-style-type: none"> ○ up to SIL 2 without external diagnostic tests ○ up to SIL 3 considering external diagnostic tests • double channel configuration: up to SIL 3 			

Remarks:

- Self-relieving configuration: both upstream and downstream seats shall be of self-relieving type (i.e. single barrier in the flow direction)
- Double piston effect configuration: at least downstream seat shall be of double piston effect type (i.e. double barrier in the flow direction)
- For further details, including environmental conditions, limitations of use, lifetime, failure rates traceability, mean repair times, common cause factors and systematic capability constraints, make reference to Safety Manual MAE11009.

END OF CERTIFICATE



Ing. Crescenzo Di Fratta

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