



Certificate no. TAI-FS-C-24-0056

WE HEREBY CERTIFY THAT

Product description HIGH PRESSURE COMPACT HYDRAULIC LINEAR SPRING RETURN ACTUATOR

Models SERIES HLAS-C

Manufacturer BIFFI ITALIA S.r.l.
Strada Biffi 165
I-29017 Fiorenzuola d'Arda (PC)

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-24-0111

Expiry date 23.06.2027

Issue date 24.06.2024

TUV AUSTRIA ITALIA
24.06.2024, Monte Roberto (AN)


Ing. Crescenzo Di Fratta

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Società a socio unico, soggetta a controllo e coordinamento di:
TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria
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Annex to certificate no. TAI-FS-C-24-0056

Type	A
HFT	0
Safety functions	1. Stem extended upon the demand of the actuation system 2. Stem retracted upon the demand of the actuation system
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
HLAS-C (standard) - No PST	1	4,00E-08	0,00E+00	0,00E+00
HLAS-C (standard) - With PST	1	3,60E-09	3,64E-08	0,00E+00
HLAS-C (standard) - No PST	2	3,98E-08	0,00E+00	0,00E+00
HLAS-C (standard) - With PST	2	3,58E-09	3,62E-08	0,00E+00
HLAS-C (multispring) - No PST	1	4,93E-08	0,00E+00	0,00E+00
HLAS-C (multispring) - With PST	1	4,44E-09	4,49E-08	0,00E+00
HLAS-C (multispring) - No PST	2	4,91E-08	0,00E+00	0,00E+00
HLAS-C (multispring) - With PST	2	4,42E-09	4,47E-08	0,00E+00

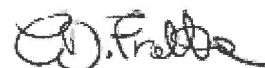
Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1_H:	Applied	Route 2_H:	Applied
	The product can be used in: <ul style="list-style-type: none"> • single channel configuration: <ul style="list-style-type: none"> ○ up to SIL 2 without external diagnostic tests ○ up to SIL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

Remarks:

- 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 SM 009

END OF CERTIFICATE

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