



Certificate no. TAI-FS-C-25-0004

WE HEREBY CERTIFY THAT

Product description Electric spring return actuator

Models Series EFS2000v4, EFS3000

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

Assessment report no. TAI-FS-R-25-0004

Expiry date 24.02.2028

Issue date 25.02.2025

TUV AUSTRIA ITALIA
25.02.2025, Monte Roberto (AN)


Ing. Crescenzo Di Fratta

TUV AUSTRIA ITALIA S.p.A.
Via del Commercio, 6/A 60030 Monte Roberto (AN)
+39 0731 22781 - info@tuvaustriaitalia.com - tuvaustriaitalia@pec.it
C.F./P. IVA IT01055750333 - Cap. Soc. i.v. € 400.000,00 - REA AN n. 211030
Società a socio unico, soggetta a controllo e coordinamento di:
TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria
www.tuvaustriaitalia.com

Annex to certificate no. TAI-FS-C-25-0004

Type	A
HFT	0
Safety functions	1. Delivery of a full stroke (\pm tolerance) driven by the spring, moving the valve to the safe position (cutting the electric supply to the electromagnetic clutch)
Mode of operation	Low Demand Mode

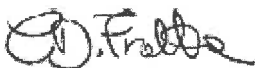
Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Series EFS2000v4, EFS3000 - No PST	1	6,18E-08	0,00E+00	0,00E+00
Series EFS2000v4, EFS3000 - With PST	1	5,56E-09	5,62E-08	0,00E+00

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 020, SM 037

END OF CERTIFICATE

TUV AUSTRIA ITALIA
25.02.2025, Monte Roberto (AN)



Ing. Crescenzo Di Fratta

TUV AUSTRIA ITALIA S.p.A.
Via del Commercio, 6/A 60030 Monte Roberto (AN)
+39 0731 22781 - info@tuvaustraiitalia.com - tuvaustraiitalia@pec.it
C.F./P. IVA IT01055750333 - Cap. Soc. i.v. € 400.000,00 - REA AN n. 211030
Società a socio unico, soggetta a controllo e coordinamento di:
TUV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria
www.tuvaustraiitalia.com