



Certificate no. TAI-FS-C-25-0013

WE HEREBY CERTIFY THAT

Product description

Hydraulic rack and pinion spring return and double acting actuator

Models

Series RPHS, RPHD

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 THE PRODUCT MEETS ALSO THE REQUIREMENTS OF STANDARD EN 17955:2024

Assessment report no. TAI-FS-R-25-0013

Expiry date 06.05.2028

Issue date 07.05.2025

TUV AUSTRIA ITALIA
07.05.2025, 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-25-0013

Type	A
HFT	0
Safety functions	<u>Spring return actuators:</u> 1. Delivery of a full stroke (90° ± tolerance) driven by the spring, with power fluid exhausted from the cylinder through the control system <u>Double acting actuators:</u> 1. Delivery of a full stroke (90° ± tolerance) driven by the piston of cylinder, powered by the specified medium working pressure
Mode of operation	Low Demand Mode

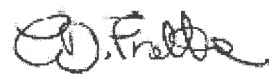
Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Series RPHS - No PST	1	2,31E-08	0,00E+00	0,00E+00
Series RPHS - With PST	1	2,08E-09	2,10E-08	0,00E+00
Series RPHD - No PST	1	2,69E-08	0,00E+00	0,00E+00
Series RPHD - With PST	1	2,43E-09	2,45E-08	0,00E+00

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 016, SM 017

END OF CERTIFICATE

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