



Certificate no. TAI-FS-C-22-0003

WE HEREBY CERTIFY THAT

Product description PNEUMATIC LINEAR SPRING RETURN AND DOUBLE ACTING ACTUATOR

Models SERIES LP/S, LP/D

Manufacturer ROTORK FLUID SYSTEMS S.r.l.
Via Padre Jacques Hamel 138/B
I-55016 Porcari (LU)

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-22-0006

Expiry date 18.01.2025

Issue date 19.01.2022

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.
19.01.2022, Monte Roberto (AN)

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Cod. Id. CEE IT02217380423 REA AN n. 170070
A socio unico, soggetta a controllo e coordinamento di:
TÜV AUSTRIA HOLDING AG, Deutschstrasse 10, 1230, Vienna, Austria
www.tuvaustriaitalia.com www.tuv.at

Annex to certificate no. TAI-FS-C-22-0003

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]
LP/SD (integral spring module) - No PST	1	2,08E-08	0,00E+00	0,00E+00
LP/SD (integral spring module) - With PST	1	1,87E-09	1,89E-08	0,00E+00
LP/SU (integral spring module) - No PST	2	2,08E-08	0,00E+00	0,00E+00
LP/SU (integral spring module) - With PST	2	1,87E-09	1,89E-08	0,00E+00
LP/S (separate spring module) - No PST	1 / 2	2,20E-08	0,00E+00	0,00E+00
LP/S (separate spring module) - With PST	1 / 2	1,98E-09	2,00E-08	0,00E+00
LP/FD - No PST	1	2,27E-08	0,00E+00	0,00E+00
LP/FD - With PST	1	2,05E-09	2,07E-08	0,00E+00
LP/FU - No PST	2	2,26E-08	0,00E+00	0,00E+00
LP/FU - With PST	2	2,04E-09	2,06E-08	0,00E+00

Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1H:	Applied	Route 2H:	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:**
- The results for model LP/S with separate spring module are given for the worst-case configuration.
 - 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-LP-A-01-E.

END OF CERTIFICATE



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