



Certificate no. TAI-FS-C-25-0002

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

Assessment report no. TAI-FS-R-25-0002

Expiry date 20.02.2028

Issue date 21.02.2025

TUV AUSTRIA ITALIA
21.02.2025, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

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TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria
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Annex to certificate no. TAI-FS-C-25-0002

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]
Series LP/SD (integral spring module) - No PST	1	1,43E-08	0,00E+00	0,00E+00
Series LP/SD (integral spring module) - With PST	1	1,29E-09	1,30E-08	0,00E+00
Series LP/SU (integral spring module) - No PST	2	1,43E-08	0,00E+00	0,00E+00
Series LP/SU (integral spring module) - With PST	2	1,29E-09	1,30E-08	0,00E+00
Series LP/S (separate spring module) - No PST	1 / 2	1,50E-08	0,00E+00	0,00E+00
Series LP/S (separate spring module) - With PST	1 / 2	1,35E-09	1,37E-08	0,00E+00
Series LP/FD - No PST	1	1,78E-08	0,00E+00	0,00E+00
Series LP/FD - With PST	1	1,60E-09	1,62E-08	0,00E+00
Series LP/FU - No PST	2	1,76E-08	0,00E+00	0,00E+00
Series LP/FU - With PST	2	1,59E-09	1,61E-08	0,00E+00

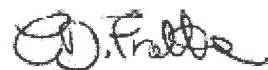
Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1_H:	Applied	Route 2_H:	Applied
	The product can be used in: - single channel configuration: - up to SIL 2 without external diagnostic tests - up to SIL 3 considering external diagnostic tests - double channel configuration: 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 Manuals SM-LP-A-01-E

END OF CERTIFICATE

TUV AUSTRIA ITALIA
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