



**Certificate no. TAI-FS-C-22-0002 Rev. 01**

WE HEREBY CERTIFY THAT

**Product description** PNEUMATIC SCOTCH-YOKE SPRING RETURN AND  
DOUBLE ACTING ACTUATOR

**Models** SERIES GP/S, GP/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-22-0004 Rev. 01**

**Expiry date** 10.01.2025

**Issue date** 20.03.2023

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.  
20.03.2023, Monte Roberto (AN)

Page 1 of 2

Ing. Crescenzo Di Fratta

## Annex to certificate no. TAI-FS-C-22-0002 Rev. 01

<b>Type</b>	A
<b>HFT</b>	0
<b>Safety functions</b>	<u>Spring return actuators:</u> 1. Delivery of a full stroke ( $90^\circ \pm$ 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 ( $90^\circ \pm$ tolerance) driven by the piston of cylinder, powered by the specified medium working pressure
<b>Mode of operation</b>	High Demand Mode

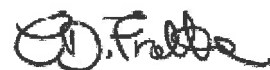
Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
GP/S - No on-line monitoring	1	8,38E-08	0,00E+00	0,00E+00
GP/S - With on-line monitoring	1	7,54E-09	7,63E-08	0,00E+00
GP/D - No on-line monitoring	1	6,75E-08	0,00E+00	0,00E+00
GP/D - With on-line monitoring	1	6,08E-09	6,15E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1s applied)			
<b>Architectural constraints</b>	Route 1 <sub>H</sub> :	Applied	Route 2 <sub>H</sub> :	Applied
	The product can be used in: <ul style="list-style-type: none"> <li>• single channel configuration:               <ul style="list-style-type: none"> <li>○ up to SIL 1 without on-line monitoring by the process</li> <li>○ up to SIL 3 considering on-line monitoring by the process</li> </ul> </li> <li>• double channel configuration: up to SIL 3</li> </ul>			

- 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-GP-A-02-E.

END OF CERTIFICATE

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.  
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