



**Certificate no. TAI-FS-C-22-0014**

WE HEREBY CERTIFY THAT

**Product description** PNEUMATIC RACK AND PINION SPRING RETURN AND  
DOUBLE ACTING ACTUATOR

**Models** SERIES GT, RCR

**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-22-0029**

**Expiry date 04.05.2025**

**Issue date 05.05.2022**

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.  
05.05.2022, Monte Roberto (AN)

Page 1 of 2

Ing. Crescenzo Di Fratta

## Annex to certificate no. TAI-FS-C-22-0014

<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>	Low Demand Mode

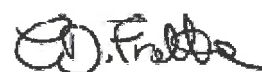
Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
GT, RCR (spring return) - No PST	1	3,49E-08	0,00E+00	0,00E+00
GT, RCR (spring return) - With PST	1	3,14E-09	3,18E-08	0,00E+00
GT, RCR (double acting) - No PST	1	1,48E-08	0,00E+00	0,00E+00
GT, RCR (double acting) - With PST	1	1,33E-09	1,34E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1 <sub>s</sub> 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 2 without external diagnostic tests</li> <li>○ up to SIL 3 considering external diagnostic tests</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-GT-00-EN.

END OF CERTIFICATE

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