



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

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05.05.2022, Monte Roberto (AN)

Page 1 of 2

Ing. Crescenzo Di Fratta

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

Type	A
HFT	0
Safety functions	<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
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_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

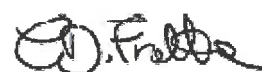
Systematic capability	3 (Route 1 _s applied)			
Architectural constraints	Route 1 _H :	Applied	Route 2 _H :	Applied
	The product can be used in: <ul style="list-style-type: none"> • single channel configuration: <ul style="list-style-type: none"> ○ up to SIL 2 without external diagnostic tests ○ up to 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-GT-00-EN.

END OF CERTIFICATE

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