



**Certificate no. TAI-FS-C-22-0041 Rev. 01**

WE HEREBY CERTIFY THAT

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

**Models** SERIES RC

**Manufacturer** ROTORK SWEDEN AB  
Kontrollvägen, 15  
791 22 Falun  
Sweden

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-22-0083 Rev. 01**

**Expiry date** 11.09.2025

**Issue date** 20.03.2023

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20.03.2023, Monte Roberto (AN)

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**Annex to certificate no. TAI-FS-C-22-0041 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° ± 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° ± tolerance) driven by the piston of cylinder, powered by the specified medium working pressure
<b>Mode of operation</b>	High Demand Mode

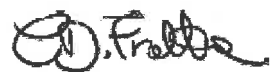
Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
RC spring return - No on-line monitoring	1	8,52E-08	0,00E+00	0,00E+00
RC spring return - With on-line monitoring	1	7,66E-09	7,75E-08	0,00E+00
RC88 spring return - No on-line monitoring	1	6,53E-08	0,00E+00	0,00E+00
RC88 spring return - With on-line monitoring	1	5,88E-09	5,95E-08	0,00E+00
RC double acting - No on-line monitoring	1	2,61E-08	0,00E+00	0,00E+00
RC double acting - With on-line monitoring	1	2,35E-09	2,37E-08	0,00E+00
RC88 double acting - No on-line monitoring	1	3,49E-08	0,00E+00	0,00E+00
RC88 double acting - With on-line monitoring	1	3,15E-09	3,18E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1s applied)			
<b>Architectural constraints</b>	<b>Route 1<sub>H</sub>:</b>	Applied	<b>Route 2<sub>H</sub>:</b>	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-RC-A-00-E.

END OF CERTIFICATE



Ing. Crescenzo Di Fratta

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