



**Certificate no. TAI-FS-C-24-0053**

**WE HEREBY CERTIFY THAT**

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

**Models** **SERIES GH/S, GH/S-FA, GH/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-24-0105**

**Expiry date 13.06.2027**

**Issue date 14.06.2024**

TUV AUSTRIA ITALIA  
14.06.2024, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

**TUV AUSTRIA ITALIA S.p.A.**  
Via del Commercio, 6/A 60030 Monte Roberto (AN)  
+39 0731 22781 - info@tuvaustraliaitalia.com - tuvaustraliaitalia@pec.it  
C.F./P. IVA IT01055750333 - Cap. Soc. i.v. € 400.000,00 - REA AN n. 211030  
Società a socio unico, soggetta a controllo e coordinamento di:  
TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria  
www.tuvaustraliaitalia.com

## Annex to certificate no. TAI-FS-C-24-0053

<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

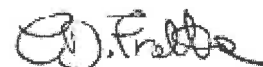
Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
Series GH/S - No PST	1	8,59E-09	0,00E+00	0,00E+00
Series GH/S - With PST	1	7,73E-10	7,81E-09	0,00E+00
Series GH/S-FA - No PST	1	9,59E-09	0,00E+00	0,00E+00
Series GH/S-FA - With PST	1	8,63E-10	8,72E-09	0,00E+00
Series GH/D - No PST	1	1,41E-08	0,00E+00	0,00E+00
Series GH/D - With PST	1	1,27E-09	1,28E-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 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-GH-A-02-E

END OF CERTIFICATE

TUV AUSTRIA ITALIA  
14.06.2024, Monte Roberto (AN)



Ing. Crescenzo Di Fratta

**TUV AUSTRIA ITALIA S.p.A.**  
 Via del Commercio, 6/A 60030 Monte Roberto (AN)  
 +39 0731 22781 - info@tuvaustralia.com - tuvaustralia@pec.it  
 C.F./P. IVA IT01055750333 - Cap. Soc. i.v. € 400.000,00 - REA AN n. 211030  
 Società a socio unico, soggetta a controllo e coordinamento di:  
 TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria  
 www.tuvaustralia.com