

Certificate no. TAI-FS-C-24-0040

WE HEREBY CERTIFY THAT

Product description PNEUMATIC HELICAL SLOT SPRING RETURN AND
DOUBLE ACTING ACTUATOR

Models SERIES HSPS, HSP

Manufacturer DVG AUTOMATION S.p.A.
Via Giacomo Rossetti 2
I-29016 Cortemaggiore (PC)

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-24-0080

Expiry date 06.05.2027

Issue date 07.05.2024

TUV AUSTRIA ITALIA
07.05.2024, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

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TÜV AUSTRIA HOLDING AG Deutschstrasse 10, A-1230, Vienna, Austria
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Annex to certificate no. TAI-FS-C-24-0040

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

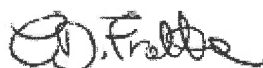
Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Series HSPS - No PST	1	8,53E-08	0,00E+00	0,00E+00
Series HSPS - With PST	1	7,68E-09	7,76E-08	0,00E+00
Series HSP - No PST	1	4,33E-07	0,00E+00	0,00E+00
Series HSP - With PST	1	3,89E-08	3,94E-07	0,00E+00

Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1_H:	Applied	Route 2_H:	Applied
	The product can be used in: - single channel configuration: - 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 20_001

END OF CERTIFICATE

TUV AUSTRIA ITALIA
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