



C E R T I F I C A T E

Certificate no. 17-SIL-0010027-01-TIC

WE HEREBY CERTIFY THAT

Product description HYDRAULIC HELICAL SLOT SPRING RETURN ACTUATORS
Models SERIES UCROM
Manufacturer SERVOVALVE S.p.A.
Via Quasimodo 25/27 – 20010 Santo Stefano Ticino MI

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. RC-0917-SIL-TIC-PC-0010027-17-02

Expiry date 11.09.2020

Note

This certificate is issued upon the request of the manufacturer as voluntary certification; it does not include the product inspection nor the production surveillance. This certificate is valid for the documents evaluated, as referred in the summary report. This certificate does not allow the manufacturer to use the safety mark of TÜV INTERCERT.

Reggio Emilia, 12.09.2017



Eng. Andrea Vivi
TÜV INTERCERT Certification Body



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ANNEX to Certificate no. 17-SIL-0010027-01-TIC

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

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
UCROM - No PST	1	6,28E-08	0,00E+00	0,00E+00
UCROM - With PST	1	5,65E-09	5,72E-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-05.

END OF CERTIFICATE

Reggio Emilia, 12.09.2017


 Eng. Andrea Vivi
 TÜV INTERCERT Certification Body