



# C E R T I F I C A T E

**Certificate no. 17-SIL-0010027-04-TIC**

WE HEREBY CERTIFY THAT

**Product description** PNEUMATIC LINEAR DOUBLE ACTING ACTUATORS

**Models** SERIES PD

**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-0118-SIL-TIC-PC-0010027-17-02

**Expiry date** 22.01.2021

**Note**

This certificate is issued upon the request of the manufacturer as voluntary certification; it does not include the production surveillance.  
This certificate does not allow the manufacturer to use the safety mark of TÜV INTERCERT.



Reggio Emilia, 23.01.2018

Eng. Andrea Vivi

TÜV INTERCERT Certification Body



# C E R T I F I C A T E

## ANNEX to Certificate no. 17-SIL-0010027-04-TIC

Type	A
HFT	0
Safety functions	1. Stem extended upon the demand of the actuation system 2. Stem retracted upon the demand of the actuation system
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
PD - No PST	1	5,17E-08	0,00E+00	0,00E+00
PD - With PST	1	4,65E-09	4,70E-08	0,00E+00
PD - No PST	2	5,19E-08	0,00E+00	0,00E+00
PD - With PST	2	4,67E-09	4,72E-08	0,00E+00

Systematic capability	3 (Route 1 <sub>S</sub> applied)			
Architectural constraints	Route 1 <sub>H</sub> :	Applied	Route 2 <sub>H</sub> :	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-07.

END OF CERTIFICATE

Reggio Emilia, 23.01.2018

  
Eng. Andrea Vivi  
TÜV INTERCERT Certification Body