



ZERTIFIKAT | CERTIFICATE | CERTIFICAT | CERTIFICADO | СЕРТИФИКАТ | شهادة | 证书 | 인증서

**Certificate no. TAI-FS-C-23-0035**

WE HEREBY CERTIFY THAT

**Product description** PNEUMATIC RACK AND PINION SPRING RETURN AND DOUBLE ACTING ACTUATOR

**Models** EL-O-MATIC™ SERIES F (from size 0950 up to and including size 4000)

**Manufacturer** EMERSON AUTOMATION SOLUTIONS  
Valve Automation, Inc.  
19200 Northwest Freeway  
Houston, Texas 77065  
USA

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-23-0070**

**Expiry date 07.06.2026**

**Issue date 08.06.2023**

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.  
08.06.2023, Monte Roberto (AN)

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Cap. Soc. i.v. EUR 10.000,00; R.l. Ancona – C.F. – P. IVA 02217380423  
Cod. Id. CEE IT02217380423 REA AN n. 170070  
A socio unico, soggetta a controllo e coordinamento di:  
TÜV AUSTRIA HOLDING AG, Deutschstrasse 10, 1230, Vienna, Austria  
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## Annex to certificate no. TAI-FS-C-23-0035

<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]
EL-O-Matic™ series F spring return - No PST	1	1,88E-08	0,00E+00	0,00E+00
EL-O-Matic™ series F spring return - With PST	1	1,69E-09	1,71E-08	0,00E+00
EL-O-Matic™ series F double acting - No PST	1	2,21E-08	0,00E+00	0,00E+00
EL-O-Matic™ series F double acting - With PST	1	1,99E-09	2,01E-08	0,00E+00

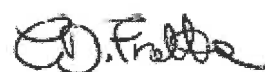
<b>Systematic capability</b>	3 (Route 1s applied)			
<b>Architectural constraints</b>	Route 1 <sub>H</sub> :	Applied	Route 2 <sub>H</sub> :	Applied
	The product can be used in: <ul style="list-style-type: none"> <li>• single channel configuration:               <ul style="list-style-type: none"> <li>○ 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 DOC.SILM.EF.EN.

END OF CERTIFICATE

TÜV AUSTRIA ITALIA - Blu Solutions s.r.l.  
08.06.2023, Monte Roberto (AN)



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