

CERTIFICATE

This certifies that the company

Omal S.p.A.
Via Ponte Nuovo, 11
25050 Rodengo Saiano (BS)
Italy

Is authorized to provide the product mentioned below

Description of product: **Pneumatic scotch-yoke spring return and double acting actuator series SR, SRN, DA, DAN**

In accordance with: **EN 61508:2010 Parts 1, 2, 3, 4, 5, 6, 7**

Registration No 20 20293 01
Test Report No PS-20293-20-L
File reference 20293-01

A handwritten signature in black ink, appearing to read "Marco Cerro".

TÜV NORD Italia S.r.l. (TÜV NORD Group)
Via Turati, 70 - 20023 Cerro Maggiore (MI)



www.tuev-nord.it

Validity
from 2020-07-03
until 2023-07-03

Cerro Maggiore, 2020-07-03
prodotto@tuev-nord.it

Please also pay attention to the information stated overleaf

ANNEX

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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]
SR, SRN - No PST	1	3,84E-08	0,00E+00	0,00E+00
SR, SRN - With PST	1	3,46E-09	3,50E-08	0,00E+00
DA, DAN - No PST	1	6,17E-08	0,00E+00	0,00E+00
DA, DAN - With PST	1	5,55E-09	5,61E-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 SMA201702.

