

C E R T I F I C A T E

This certifies, that the company

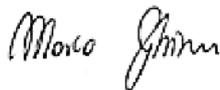
Omal S.p.A.
Via Ponte Nuovo 11
25050 Rodengo Saiano (BS)
Italy

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, 4, 5, 6, 7**

Registration No 20 20293 01
Test Report No PS-23789-23-M-04
File reference 23789-04



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



www.tuev-nord.it

Validity
from 2023-07-03
until 2026-07-03

Cerro Maggiore, 2023-07-03
prodotto@tuev-nord.it

Please also pay attention to the information stated overleaf

TNI-QF(IND-SIL-01)-14-Rev00_01_03_2020-Certificate_Type A

ANNEX

Annex 1, Page 2 of 2

To Certificate-Nr. 20 20293 01

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> 2. 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 SR, SRN - No PST	1	4,36E-08	0,00E+00	0,00E+00
Series SR, SRN - With PST	1	3,93E-09	3,97E-08	0,00E+00
Series DA, DAN - No PST	1	8,07E-08	0,00E+00	0,00E+00
Series DA, DAN - With PST	1	7,26E-09	7,34E-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:	<ul style="list-style-type: none"> • 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 			

