

# CERTIFICATE

This certifies that the company

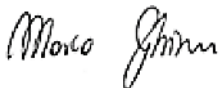
**Sitecna S.r.l. a socio unico**  
**Via Giuseppe Di Vittorio 22**  
**20068 Peschiera Borromeo (MI)**  
**Italy**

Is authorized to provide the product mentioned below

Description of product: **Volume booster series VB**

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

Registration No 22 23238 03  
Test Report No PS-23238-22-L-03  
File reference 23238-03



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

[www.tuev-nord.it](http://www.tuev-nord.it)



Validity  
from 2022-12-09  
until 2025-12-09

Cerro Maggiore, 2022-12-09  
[prodotto@tuev-nord.it](mailto: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. 22 23238 03

Type	A
HFT	0
Safety functions	1. De-energize-to-trip operation: to discharge a chamber of a single acting or double acting actuator 2. Energize-to-trip operation: to charge a chamber of a double acting actuator
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
Series VB - No PST	1	2,45E-08	0,00E+00	1,13E-07
Series VB - With PST	1	2,45E-10	2,43E-08	1,13E-07
Series VB - No PST	2	9,31E-08	0,00E+00	0,00E+00
Series VB - With PST	2	9,31E-10	9,22E-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 STC-SM-VB

