

CERTIFICATE

This certifies, that the company

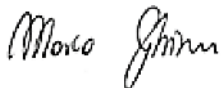
Valvosider S.r.l.
Via San Rocco, 2
13011 Borgosesia (VC)
Italy

Is authorized to provide the product mentioned below

Description of product: **Gate valve code 45, 45P, 45SO, 45AL, P5, P5P (ASME design);
code 11/12, 11P/12P, 11SO/12SO, 11AL/12AL, P2, P2P (EN/DIN
design)**

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

Registration No 22 23204 01
Test Report No PS-23204-22-L-01
File reference 23204-01



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



www.tuev-nord.it

Validity
from 2022-11-16
until 2025-11-16

Cerro Maggiore, 2022-11-16
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 23204 01

Type	A
HFT	0
Safety functions	1. Close / Open upon the demand of the actuation system 2. Close upon the demand of the actuation system, with inline tightness when in closed position
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Gate valve - No PST	1	4,09E-08	0,00E+00	0,00E+00
Gate valve - With PST	1	3,68E-09	3,72E-08	0,00E+00
Gate valve - No PST	2	5,38E-08	0,00E+00	0,00E+00
Gate valve - With PST	2	1,66E-08	3,72E-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 SFM-SIL-SR 			

