

# CERTIFICATE

This certifies, that the company

**Starline S.p.A.**  
**Via dei Livelli di Sopra, 11**  
**24060 Costa di Mezzate (BG)**  
**Italy**

Is authorized to provide the product mentioned below

Description of product: **2-ways floating ball valve series T110, T210, 110, 210, 120, 220, 130, 230, 140, 240, 150, 250, 160, 170, 270**

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

Registration No 21 21753 02  
Test Report No PS-21753-21-L-02  
File reference 21753-02



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 2021-09-06  
until 2024-09-06

Cerro Maggiore, 2021-09-06  
[prodotto@tuev-nord.it](mailto:prodotto@tuev-nord.it)

*Please also pay attention to the information stated overleaf*

# ANNEX

Annex 1, Page 2 of 2

To Certificate-Nr. 21 21753 02

<b>Type</b>	A
<b>HFT</b>	0
<b>Safety functions</b>	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
<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]
2-ways floating - No PST	1	1,33E-08	0,00E+00	0,00E+00
2-ways floating - With PST	1	1,20E-09	1,21E-08	0,00E+00
2-ways floating - No PST	2	1,75E-08	0,00E+00	0,00E+00
2-ways floating - With PST	2	5,38E-09	1,21E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1 <sub>s</sub> applied)			
<b>Architectural constraints</b>	<b>Route 1<sub>H</sub>:</b>	Applied	<b>Route 2<sub>H</sub>:</b>	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>			
<b>Remarks:</b>	<ul style="list-style-type: none"> <li>• 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 ST-SM-SIL-F.</li> </ul>			

