

C E R T I F I C A T E

This certifies, that the company

L&T Valves
L&T Campus, TC1 – 2nd Floor, Mount – Poonamallee Road
Manapakkam, Chennai – 600 089
India

Is authorized to provide the product mentioned below

Description of product: **Gate Valves 0.25" $\leq$ DN < 72" (Class 150 to 2500),
Service Temp: -196 Deg C to 649 Deg C, Fluid Oil and Gas**

In accordance with: **IEC/EN 61508:2010 Parts 2, 4**

Registration No 22 22770 02
Test Report No PS-27869-25-M-02
File reference 27869-02



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



www.tuev-nord.it

Validity
from 2025-09-29
until 2028-09-28

Cerro Maggiore, 2025-09-29
prodotto@tuev-nord.it

Type	A
HFT	0
Safety functions	1. Correct switching on demand (open to closed) 2. Correct switching on demand (closed to open)
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
Bellow Seal – G1	1	1,89E-06	1,80E-06	0,00E+00
Bolted Bonnet – G2	1	7,58E-08	7,21E-08	0,00E+00
Extension Arrangement (Cryogenic) – G3	1	6,29E-06	5,99E-06	0,00E+00
Extension Spindle Arrangement – G4	1	8,92E-06	8,49E-06	0,00E+00
Pressure Seal – G5	1	8,30E-08	7,90E-08	0,00E+00
Underground – G6	1	8,82E-07	8,39E-07	0,00E+00
Bellow Seal – G1	2	2,40E-06	1,29E-06	0,00E+00
Bolted Bonnet – G2	2	9,61E-08	5,18E-08	0,00E+00
Extension Arrangement (Cryogenic) – G3	2	7,98E-06	4,30E-06	0,00E+00
Extension Spindle Arrangement – G4	2	1,13E-05	6,10E-06	0,00E+00
Pressure Seal – G5	2	1,05E-07	5,67E-08	0,00E+00
Underground – G6	2	1,12E-06	6,03E-07	0,00E+00

Systematic capability	3 (Route 2 _s applied)			
Architectural constraints	Route 1 _H :	Applied	Route 2 _H :	Applied
	See the relevant assessment report for the max SIL achievable.			
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. λ_{dd} is only accountable if partial valve stroke is implemented as external diagnostics.			

