# Certificate

## No.: 968/V 1204.02/26

| | | | |
|---|---|---|---|
| **Product tested** | Gate Valves for cryogenic and non-cryogenic use | **Certificate holder** | AMPO POYAM Valves<br>Division Valvulas Poyam<br>Barrio Katea Auzoa S/N<br>20213 Idiazabal<br>(Guipuzcoa)<br>Spain |
| **Type designation** | Gate Valve, Cryogenic Gate Valve, Pressure Seal Gate Valve, Cryogenic Pressure Seal Gate Valve, Parallel Slide Gate Valve, Cryogenic Parallel Slide Gate Valve | | |
| **Codes and standards** | IEC 61508 parts 1-2:2010 | | EN 17955:2024 (non accred.) |
| **Intended application** | Safety Functions:<br>- Safe closing upon demand<br>- Safe opening upon demand<br><br>The valves are suitable for use in a safety instrumented system up to SIL 2. Under consideration of the minimum required hardware fault tolerance HFT = 1 the valves may be used in a redundant structure up to SIL 3. | | |
| **Specific requirements** | The instructions of the associated Installation, Operating and Safety Manual shall be considered. | | |

Summary of test results see back side of this certificate.

Valid until 2031-02-25

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT FSP1 V3.0:2020 in its actual version, whose results are documented in Report No. 968/V 1204.02/26 dated 2026-01-30. This certificate is valid only for products, which are identical with the product tested. Issued by the certification body accredited by DAkkS according to DIN EN ISO/IEC 17065. The accreditation is only valid for the scope listed in the annex to the accreditation certificate D-ZE-11052-02-00.

Köln, 2026-02-25

TÜV Rheinland Industrie Service GmbH
Bereich Automation
Funktionale Sicherheit
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Certification Body Safety & Security for Automation & Grid

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**Holder:** AMPO POYAM Valves
Division Valvulas Poyam
Barrio Katea Auzoa S/N
20213 Idiazabal (Guipuzcoa)
Spain

**Product tested:** **Gate Valves (cryogenic / non-cryogenic use):**
- Standard Gate Valves
- Pressure Seal Gate Valves
- Parallel Slide Gate Valves

**Results of Assessment**

| | | |
|---|---|---|
| Route of Assessment | | $2_H$ / $1_S$ |
| Type of Sub-system | | Type A |
| Mode of Operation | | Low Demand Mode |
| Hardware Fault Tolerance | HFT | 0 |
| Systematic Capability | | **SC 3** |

**Standard Gate Valves: Closing upon demand (FC)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 7.40 E-08 / h | **74 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.24 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.25 E-05 | |

**Standard Gate Valves: Opening upond demand (FO)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 6.90 E-08 / h | **69 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.02 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.03 E-05 | |

**Pressure Seal Gate Valves: Closing upon demand (FC)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 7.40 E-08 / h | **74 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.24 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.25 E-05 | |

**Pressure Seal Gate Valves: Opening upond demand (FO)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 6.90 E-08 / h | **69 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.02 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.03 E-05 | |

**Parallel Slide Gate Valves: Opening upond demand (FO)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 8.50 E-08 / h | **85 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.72 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.74 E-05 | |

**Parallel Slide Gate Valves: Opening upond demand (FO)**

| | | | |
|---|---|---|---|
| Dangerous Failure Rate | $\lambda_D$ | 8.00 E-08 / h | **80 FIT** |
| Average Probability of Failure on Demand 1oo1 | $PFD_{avg}(T_1)$ | 3.50 E-04 | |
| Average Probability of Failure on Demand 1oo2 | $PFD_{avg}(T_1)$ | 3.52 E-05 | |

**Origin of failure rates**
The stated failure rates are the result of an FMEDA acc. EN 17955:2024 Annex C.
The stated failure rates do not release the end-user from collecting and evaluating application-specific reliability data.

**Periodic Tests and Maintenance**
The given values require periodic tests and maintenance as described in the Safety Manual.
The operator is responsible for the consideration of specific external conditions (e.g. ensuring of required quality of media, max. temperature, time of impact), and adequate test cycles.