



The manufacturer  
may use the mark:



Revision 1.2 November 6, 2025  
Surveillance Audit Due  
January 1, 2026



# Certificate / Certificat Zertifikat / 合格証

VEL 2208117 C001

*exida* hereby confirms that the:

**API 623 Globe Valve**

**Velan**

**Montreal, QC - Canada**

Has been assessed per the relevant requirements of:

**IEC 61508 : 2010 Parts 1-2**

and meets requirements providing a level of integrity to:

**Systematic Capability: SC 3 (SIL 3 Capable)**

**Random Capability: Type A, Route 2<sub>H</sub> Device**

**PFH/PFD<sub>avg</sub> and Architecture Constraints  
must be verified for each application**

## **Safety Function:**

The Globe Valve will move to the designed safe position per the actuator design within the specified safety time.

## **Application Restrictions:**

The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.



Evaluating Assessor

Certifying Assessor

VEL 2208117 C001

**Systematic Capability: SC 3 (SIL 3 Capable)****Random Capability: Type A, Route 2<sub>H</sub> Device****PFH/PFD<sub>avg</sub> and Architecture Constraints  
must be verified for each application****Systematic Capability :**

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

**Random Capability:**

The SIL limit imposed by the Architectural Constraints must be met for each element. This device meets *exida* criteria for Route 2<sub>H</sub>.

**Versions:**

| Application              | Pressure Class | WCB          | Cast Stainless |
|--------------------------|----------------|--------------|----------------|
| Non-rotating rising stem | 150            | NPS 12 to 14 | N/A            |
|                          | 300            | NPS 8 to 14  |                |
|                          | 600            | NPS 6 to 8   |                |
|                          | 900            | NPS 2 to 4   |                |
|                          | 1500           | NPS 2 to 4   |                |
| Non-rotating rising stem | 150            | NPS 8        | N/A            |
|                          | 300            | NPS 6        |                |
| Rotating rising stem     | 150            | NPS 2 to 10  | NPS ½ to 6     |
|                          | 300            | NPS 2 to 6   | NPS ½ to 6     |
|                          | 600            | NPS 2 to 4   | N/A            |

**IEC 61508 Failure Rates in FIT<sup>1</sup>**

| Device                         | $\lambda_{SD}$ | $\lambda_{SU}$ | $\lambda_{DD}$ | $\lambda_{DU}$ |
|--------------------------------|----------------|----------------|----------------|----------------|
| Full Stroke, Clean Service     | 0              | 0              | 0              | 460            |
| Tight Shut Off, Clean Service  | 0              | 0              | 0              | 1234           |
| Open on Trip, Clean Service    | 0              | 180            | 0              | 281            |
| Full Stroke, Severe Service    | 0              | 0              | 0              | 859            |
| Tight Shut Off, Severe Service | 0              | 0              | 0              | 2398           |
| Open on Trip, Severe Service   | 0              | 356            | 0              | 503            |

<sup>1</sup> FIT = 1 failure / 10<sup>9</sup> hours

**SIL Verification:**

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/PFD<sub>avg</sub> considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each element must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

**Assessment Report:** VEL 14-05-020 R003 V2 R3 Safety Valves IEC 61508 Assessment (or later)

**Safety Manual:** SIL-MTV



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