Certificate / Certificat
Zertifikat / 合格証

VEL 1405020 C005

exida hereby confirms that the:

Cast Steel Gate Valves

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_H Device

**PFH/PFD$_{avg}$ and Architecture Constraints
must be verified for each application**

Safety Function:
The 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.

The manufacturer
may use the mark:

Revision 2.4 February 18, 2026
Surveillance Audit Due
March 30, 2026

ANAB
ANSI National Accreditation Board
A C C R E D I T E D
ISO/IEC I7065
PRODUCT CERTIFICATION BODY
#1004

_____
Evaluating Assessor

_____
Certifying Assessor

Certificate / Certificat / Zertifikat / 合格証

VEL 1405020 C005

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A, Route 2$_H$ Device

PFH/PFD$_{avg}$ and Architecture Constraints must be verified for each application

Cast Steel Gate Valves

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$_H$.

IEC 61508 Failure Rates in FIT[1], Cast Steel Wedge Gate Valve, Clean Service

Application	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Full Stroke	0	0	0	445
Tight Shut Off	0	0	0	916
Open on Trip	0	103	0	342
Full Stroke with PVST	0	0	185	260
Tight Shut Off with PVST	0	0	185	731
Open on Trip with PVST	103	0	185	157

[1] FIT = 1 failure / 10^9 hours

PVST = Partial Valve Stroke Test of a final element Device

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/PFD$_{avg}$ 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 Velan Assessment Report R003 V2R3 Safety Valves IEC 61508 Assessment (or later)

Safety Manual: SIL-MTV

80 N Main St
Sellersville, PA 18960

T-061, V5R2