



The manufacturer
may use the mark:



Revision 4.0 September 19, 2025
Surveillance Audit Due
August 01, 2028



Certificate / Certificat Zertifikat / 合格証

DEL 1804039 C004

exida hereby confirms that the:

Triple Offset & Double Offset High Performance Butterfly Valve

**DelVal Flow Controls Private Ltd.
Maharashtra - India**

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 Butterfly 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

DEL 1804039 C004

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****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.

Versions:

Valve Type	Bore Sizes	Pressure Class
Triple Offset Butterfly Valve – Series 4	3" to 84"	150#, 300# & 600#
Double Offset Butterfly Valve – Series 44 to 49	2" to 48"	150# & 300#

Certified Models:

Only the model numbers listed in Section 3 of the Assessment Report are included.

IEC 61508 Failure Rates in FIT*

Static Application – Clean Service	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Full Stroke	0	0	0	512
Tight Shut-Off	0	0	0	943
Open on Trip	0	81	0	431

* FIT = 1 failure / 10⁹ hours

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: DEL 18/04-039 R010 V3R1 (or later)

Safety Manual: DEL-SM:18/04-039 R004A Rev1 & R004B Rev1 (or later)



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