



Certificate / Certificat Zertifikat / 合格証

NEL 2204182 C002

exida hereby confirms that the:

NELES Easyflow Floating Ball Valve

Valmet Flow Control Private Limited 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**

Certified Models:

Only the model numbers listed in Section 3.2 of the Assessment Report are included.

Safety Function:

The Ball 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 2.0 July 21, 2025
Surveillance Audit Due
June 01, 2028



Evaluating Assessor

Certifying Assessor

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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
Floating Ball Valve (FB & RB) - Series J4	½" to 2"	800#
Floating Ball Valve (RB) - Series J7	½" to 8"	150#
	½" to 6"	300#
Floating Ball Valve (FB) - Series J9	½" to 8"	150#
	½" to 6"	300#
Jacketed Floating Ball Valve - Series J9S	1" to 4"	150#

IEC 61508 Failure Rates in FIT*

Static Application – Clean Service	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Full Stroke	0	0	0	392
Tight Shut-Off	0	0	0	1128
Open on Trip	0	121	0	271

* 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: NEL 22/04-182 R001 V3R1 (or later)

Safety Manual: F124107 Rev 0 (or later)



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