

The manufacturer
may use the mark:



Reports:

ERD 10/12-069 R003 V1 R5
Assessment Report

ERD 10/12-069 R001 V1 R6
FMEDA Report

Validity:

This assessment is valid for
the Type OSE Slam-Shut
Valve

This assessment is valid until
November 1, 2014.

Revision 5.0 October 18, 2011



Certificate / Certificat Zertifikat / 合格証

ERD 1012069 C001

exida hereby confirms that the:

Type OSE Slam-Shut Valve

Emerson Process Management Regulator Technologies, Inc.

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-7

and meets requirements providing a level of integrity to:

Systematic Integrity: SIL 3 Capable

Random Integrity: Type A Element

**PFD_{AVG} and Architecture Constraints
must be verified for each application**

Safety Function:

The Slam-Shut Valve will move to the designed safe position
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

ERD 1012069 C001

Systematic Integrity: SIL 3 Capable**Random Integrity: Type A Element****PFD_{AVG} and Architecture Constraints
must be verified for each application**

SIL 3 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 without "prior use" justification by end user or diverse technology redundancy in the design.

BODY SIZE NPS(DN)	END CONNECTION STYLE	MECHANISM BOX	MANOMETRIC SENSING DEVICE TYPE			
1(25)	NPS 1 and 2, NPT CL125B FF CL250B RF	BM1 BM2	BMS1 BMS2	162	Diaphragm	
2(50)				71		
3(80)						
4(100)						
6(150)						
1(DN25)	NPS 1 and 2, NPT CL150 RF CL300 RF CL600 RF			27	Piston	
2(DN50)				17		
3(DN80)						
4(DN100)						
6(DN150)			236	Bellows		
8(DN200)			315			
10(DN250)						
Options:						
Explosion-proof switch						
Non-explosion-proof limit switch						
Solenoid - Must be exida certified to be used in a safety system						
Additional manometric device for extra pressure sensing						
IT/3V three-way valve for setting control pressure (Pe max 50 bar)						

IEC 61508 Failure Rates, Full Stroke, Clean Service in FIT*

Description	λ_s	λ_o
Valve Body & Mechanism Box	176	561
Manometric Sensing Device - Configuration		
Piston 017 & 027 - OPSO	202	79
Piston 017 & 027 - UPSO	177	102
Piston 017 & 027 - OUPSO	177	104
Diaphragm 071 - OPSO	122	45
Diaphragm 071 - UPSO	97	68
Diaphragm 071 - OUPSO	97	70
Diaphragm D162 - OPSO	63	40
Diaphragm D162 - UPSO	38	64
Diaphragm D162 - OUPSO	38	65
Bellows 236 & 315 - OPSO	681	35
Bellows 236 & 315 - UPSO	656	58
Bellows 236 & 315 - OUPSO	656	60
Manual Operator	22	0

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of 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 subsystem must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

* FIT = 1 failure / 10⁹ hours**Type OSE Slam-Shut
Valve****Emerson Process
Management Regulator
Technologies, Inc.**

Form	Version	Date
C61508	2.7-3	Mar 2011