



The manufacturer
may use the mark:



Revision 1.0 December 19, 2024
Surveillance Audit Due
January 01, 2028



Certificate / Certificat Zertifikat / 合格証

ROT 2204197 C001

exida hereby confirms that the:

DRS Actuator

**Rotex Manufacturers & Engineers
Pvt. 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 actuator will move to the designed safe position per the valve 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

ROT 2204197 C001

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:

Series	Frame Size	Cylinder Bore
Spring Return	AA to M	063 to 1300
Double Acting, Single Piston		
Double Acting, Double Piston		

IEC 61508 Failure Rates in FIT*

Static Application	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Hydraulic:				
Spring Return	0	108	0	381
Double Acting, Single Piston	0	0	0	418
Double Acting, Double Piston	0	0	0	544
Pneumatic:				
Spring Return	0	187	0	499
Double Acting, Single Piston	0	0	0	598
Double Acting, Double Piston	0	0	0	889

* 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: ROT 22/04-197 R003 V1R1 (or later)

Safety Manual: 1-04-01-C-12684 R00 (or later)



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