



Certificate / Certificat Zertifikat / 合格証

ROT 2501222 C001

exida hereby confirms that the:

DXLW & DNLF Series Rotary Limit Switch

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 Limit Switch is used for valve position (open position / close position) monitoring.

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 1.0 May 31, 2026
Surveillance Audit Due
June 01, 2029



Evaluating Assessor

Certifying Assessor

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	Switch Code	Switch/Sensor Type
DXLW – Weatherproof	1A	Roller Lever Type Microswitches (SPDT Switch)
	2A	Cylindrical Proxy Sensor
	3A	Flat Type Proxy Sensor
DNLf – Flameproof	4A	Slot Type Proxy Sensor
	5A	Roller Lever Type Microswitches (DPDT Switch)
	6A	Hermitically Sealed Reed Switch

IEC 61508 Failure Rates in FIT*

Application/Device/Configuration	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
DXLW and DNLf Series with: 1A Microswitch, 5A Microswitch or 6A Reed Switch	0	5	0	84
DXLW and DNLf Series with: 2A, 3A, or 4A Proximity Switch	0	16	0	84

* 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 25/01-222 R002 V1R1 (or later)

Safety Manual: 1-11-01-C-20297 R0 (or later)



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