

CERTIFICATE

Registered No.:
CER-IND 1102822203011001

Date of expired
07 April 2025

Assessment report No.
CR-IND 1102822203011001

Date of issue
08 April 2022

Revision:
0

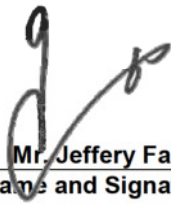
This is to certify that the following company comply with the relevant requirements of mentioned safety standards:

Applicant: **Zorgon (Zhejiang) Automation Technology Co., Ltd.**
Address: No. 20, Zongyan Road, Xikou industrial park, Xikou,
Fenghua District, Ningbo, Zhejiang Province, P.R. China

Product: **151 series Solenoid Valve**

Scope: IEC 61508: 2010, (Part 1~7)
SIL3 (with HFT \geq 1)
Open or Close on demand

Remark: PFD_{avg} and Architecture Constraints must be verified for each application.
The unit must be properly integrated into a Safety instrumented function per the requirements in Safety Manual.


Mr. Jeffery Fan
Name and Signature



Approval and signed after
the first annually
surveillance audit:

Approval and signed after
the second annually
surveillance audit:



APPENDIX

of certificate No.: CER-IND1102822203011001

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Product:	151 series Solenoid Valve	
Specific of product:	Type:	Type A Element
	Route:	2 _H
	DC: (Diagnostic coverage)	0 %
	λ_d (Dangerous Failure Rate)	1.21E-06 (Open on demand) 1.42E-06 (Close on demand)
	λ_{du} (Dangerous Undetected Failure Rate)	1.21E-06 (Open on demand) 1.42E-06 (Close on demand)
	Proof test intervals:	8784 Hours (12 Months)
	MTTR: (Mean Time to Repair)	24 Hours
	β : (Fraction of common cause)	10%
	PFD _{avg} @ 1001: (Probability of Failure)	2.66E-03 (Open on demand) 3.14E-03 (Close on demand)
	PFD _{avg} @ 1002: (Probability of Failure)	2.82E-04 (Open on demand) 3.36E-04 (Close on demand)

Approval and signed after the
first annually surveillance
audit:

Approval and signed after the
second annually surveillance
audit: