

CERTIFICATE

Registered No.:
CER-IND 1102822101004005

Date of expired
7th March 2026

Assessment report No.
CR-IND 1102822101004005

Date of issue
8th March 2023

Revision:
0

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


Applicant: Emerson Automation Solutions Final Control (Sichuan) Co., Ltd.
Address: 1128 Kong Gang 4th Road, Southwest Airport Economic Development Zone, Chengdu City, Sichuan Province, P.R. China

Product: Bettis RPX-Series, Rack and Pinion Pneumatic Actuators
- Double Acting (DA)
- Spring Return (SR)

Scope: IEC 61508: 2010, (Part 1~7)
SIL3 (with HFT≥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 SIL Safety Manual


Mr. Jeffery Fan
Name and Signature


Issued at Shanghai
Place, Stamp

Approval and signed after the first annually surveillance audit:

Approval and signed after the second annually surveillance audit:



APPENDIX

of certificate No.: CER-IND1102822101004005

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Product:	Bettis RPX-Series, Rack and Pinion Pneumatic Actuators	
Specific of product:	Type:	Type A Element
	Route	2H
	DC: (Diagnostic coverage)	0%
	λ_d Dangerous Failure Rate	9.91E-09 (Double Acting) 1.81E-08 (Spring Return)
	λ_{du} (Dangerous Undetected Failure Rate)	9.91E-09 (Double Acting) 1.81E-08 (Spring Return)
	λ_{dd} (Dangerous Detected Failure Rate)	0.00E+00 (Double Acting) 0.00E+00 (Spring Return)
	λ_s (Safety Failure Rate)	2.82E-09 (Double Acting) 4.59E-09 (Spring Return)
	Proof test intervals:	8784 Hours (12 Months)
	MTTR: (Mean Time to Repair)	24 Hours
	β : (Fraction of common cause)	10%
	PFD _{avg} @ 1oo1: (Probability of Failure)	4.38E-05 (Double Acting) 8.00E-05 (Spring Return)
	PFD _{avg} @ 1oo2: (Probability of Failure)	4.38E-06 (Double Acting) 8.01E-06 (Spring Return)

Approval and signed after the first annually surveillance audit:

Approval and signed after the second annually surveillance audit: