Certificate

SIL/PL Capability

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No.: 968/FSP 3037.00/26

Product tested	Rotary hydraulic actuators Rotary pneumatic actuators	**Certificate holder**	Duxvalves B.V. Bornsestraat 321 7601 PB Almelo The Netherlands
Type designation	Duxdrive DDH & DDP Series SRC / SRO Details see Revision List		
Codes and standards	IEC 61508 parts 1-2:2010		EN 17955:2024 (non accred.)
Intended application	Safety function: On loss of hydraulic or pneumatic pressure supply, move into fail safe position by spring force (NC/NO) The actuators are suitable for use in a safety instrumented system up to SIL 2 (low demand mode). Under consideration of the minimum required hardware fault tolerance HFT = 1 for the complete final element the actuators may be used up to SIL 3.		
Specific requirements	The instructions of the associated Installation, Operating and Safety Manual shall be considered.		

Summary of test results see back side of this certificate.

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT FSP1 V3.0:2020 in its actual version, whose results are documented in Report No. 968/FSP 3037.00/26 dated 2026-03-26. This certificate is valid only for products, which are identical with the product tested. Issued by the certification body accredited by DAkkS according to DIN EN ISO/IEC 17065. The accreditation is only valid for the scope listed in the annex to the accreditation certificate D-ZE-11052-02-00.

Köln, 2026-04-16

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Holder: Duxvalves B.V.
Bornsestraat 321
7601 PB Almelo
The Netherlands

Product tested: Rotary hydraulic actuators
Rotary pneumatic actuators
Type: Duxdrive DDH & DDP
Details see Revision List

Results of Assessment

Route of Assessment	2_H / 1_S
Type of Sub-system	Type A
Mode of Operation	Low Demand Mode
Utilzation Rate	Low and High Utilization Rate
Hardware Fault Tolerance	HFT = 0
Systematic Capability	**SC 3**

Move into fail safe position by spring force (NC/NO)

Dangerous Failure Rate	λ_D	3.80 E-08 / h	**38 FIT**
Average Probability of Failure on Demand 1oo1	$PFD_{avg}(T_1)$	1.69 E-04	
Average Probability of Failure on Demand 1oo2	$PFD_{avg}(T_1)$	1.69 E-05	

Assumptions for the calculations above: DC = 0 %, T_1 = 1 year, MRT = 72 h, β_{1oo2} = 10 %

Origin of failure rates
The stated failure rates are the result of an FMEDA acc. EN 17955, Annex C.
The stated failure rates do not release the end-user from collecting and evaluating application-specific reliability data.

Periodic Tests and Maintenance
The given values require periodic tests and maintenance as described in the Safety Manual.
The operator is responsible for the consideration of specific external conditions (e.g. ensuring of required quality of media, max. temperature, time of impact), and adequate test cycles.