SIL Declaration of Conformity acc. to IEC 61508

Description of the equipment:
ECON butterfly valves, series 91, 93 & 94

Manufacturers certificate no.: 968/V 1063.00/18

Applied standards : IEC 61508, part 1, 2, 4 & 7

Intended application **:** The valves are suitable for use in a safety instrumented system up to SIL 2. Under consideration of the mínimum required hardware fault tolerance HFT = 1 the valves may be used in a redundant architecture up to SIL 3.

Remarks: Should these valves be combined with an actuator, the applicable SIL level will need to be re-calculated based on the specific combination.
The above mentioned SIL level is based on a test interval of the valve of 12 months.

ERIKS Flow Control

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Rev.1 Date:15-10-2020

Product tested: Double Offset Butterfly Valve

Results of Assessment

Route of Assessment		2_H /1_S	
Type of Sub-system		Type A	
Mode of operation		Low Demand Mode	
Hardware Fault Tolerance	HFT	0	
Lambda Dangerous confidence level of calculation 1-α =95%	λ_D	3.50 E-07 / h	350 FIT
Lambda Dangerous Undetected assumed Diagnostic Coverage DC=0%	λ_{Du}	3.50 E-07 / h	350 FIT
Mean Time To Dangerous Failure	$MTTF_D$	2.86 E+06 h	326 a
Average Probability of Failure on Demand 1oo1 assumed Proof Test Interval T_1 =1 year	**$PFD_{avg}(T_1)$**	**1.53 E-03**	
Average Probability of Failure on Demand 1oo2 assumed Proof Test Interval T_1 =1 year assumed β_{1oo2} = 10%	**$PFD_{avg}(T_1)$**	**1.56 E-04**	