

SIL manufacturer's declaration

Functional safety in accordance with IEC 61508 and IEC 61511

Hereby we, InterApp Technics AG Grundstrasse 24 6343 Rotkreuz Switzerland

declare that, for the valves listed below, the failure rates outlined below were detected in safety-related applications in accordance with IEC 61508 and IEC 61511.

Butterfly Valve	Туре	Range	
Bianca	B1, B3, B4	From DN32 up to DN900	

Systematic Capability:

Bianca Range of valves is suitable to reach SIL-2 with 1001 and SIL-3 with 1002 for all calculated configurations using Route1H. For Route 2H SIL-2 is achieved with 1001 and SIL-3 with 1002.

Safety function:

The butterfly Valve will move to the designed safe position per the actuator design within the specified safety time.

Authorized Person for the Manufacturer: R&D Manager Name: Antonio Maestre Signature:

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Random capability:

The evidence is based on proven in use, and number of sales and customer complaints about defective valves have been evaluated over a certain period of time.

The determinated failure rates apply to the operating mode. Probability of failure on demand is strongly connected to the conditions in use (temperature, pressure, fluid). Therefore, it's recommended to define the maintenance intervals and testing in collaboration with the manufacturer.

Safety Related Characteristics:

		TI = 1 Year		TI = 2 Years			
		1001	1002	1001	1002		
ß=0%	PFD _{AVG}	6,14E-03	3,49E-05	7,30E-03	4,03E-05		
	PFH	3,79E-07	4,66E-09	3,79E-07	5,54E-09		
	SFF	0,00%	0,00%	0,00%	0,00%		
	λ _{DU}	379 FITS					
	λ_{DD}	0 FITS					
	MTTF	301 years					
ß=10%	PFD _{AVG}	6,14E-03	6,42E-04	7,30E-03	7,63E-04		
	PFH	3,79E-07	4,17E-08	3,79E-07	4,24E-04		
	SFF	0,00%	0,00%	0,00%	0,00%		
	λ _{DU}	379 FITS					
	λ _{dd}	0 FITS					
	MTTF	301 years					