

Safety-related evaluation
based on Generic Equipment data
acc. to IEC/EN 61508:2010

SIL (Safety Integrity Level)

Operating figures for the reliability of ARCA


**Control valves Series 8C, 6N, 6H, 190 with
pneumatic (spring return) actuators Series 811, 812 and MA**

Valve Type	Globe, Air-To-Open/Close		
Actuator type	Pneumatic, Spring Return		
Architecture type	A	Hardware fault tolerance	0
Remarks	Emergency shutdown service (Low demand mode)		

Failure rate data	per 10⁹ Hours (FITs)	
	no Diagnostic Coverage	With online Monitoring/partial Valve stroke test
Safe Failures (λ_s)		2400
Safe Failures undetected (λ_{su})	2400	
No effect		
Dangerous Failures Detected (λ_{DD})		960
Dangerous Failures Undetected (λ_{DU})	1600	640
SFF*	60%	84%

* Part of the non-dangerous failures of the total failure rate

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