

IEC 61508 CONFORMITY CERTIFICATE.

MECÁNICA PRISMA, SL Certifies that the following Pneumatic Actuators Systems have PFD or PFH suitable to Use In a SIL Safety Loops:

Component	Failure Rate	Dangerous Failure Rate	Tce	PFD	PFH	Reachable SIL (PFD)	Reachable SIL (PFH)
PI00	2,29E-07	2,29E-07	4388	1,00E-03	2,29E-07	SIL2	SIL2
PI10	2,15E-07	2,15E-07	4388	9,46E-04	2,15E-07	SIL3	SIL2
PI20	7,42E-07	7,42E-07	4388	3,26E-03	7,42E-07	SIL2	SIL2
PI30	7,23E-07	7,23E-07	4388	3,17E-03	7,23E-07	SIL2	SIL2
PI00 E	4,36E-06	4,36E-06	4388	1,91E-02	4,36E-06	SIL1	SIL1
PI10 E	6,48E-07	6,48E-07	4388	2,84E-03	6,48E-07	SIL2	SIL2
PI20 E	1,27E-06	1,27E-06	4388	5,58E-03	1,27E-06	SIL2	SIL1
PI00 S	8,06E-08	8,06E-08	4388	3,54E-04	8,06E-08	SIL3	SIL3
PI10 S	7,31E-08	7,31E-08	4388	3,21E-04	7,31E-08	SIL3	SIL3
PI20 S	1,59E-07	1,59E-07	4388	6,98E-04	1,59E-07	SIL3	SIL2
PI30 S	1,99E-07	1,99E-07	4388	8,74E-04	1,99E-07	SIL3	SIL2
PI00 ES	5,11E-07	5,11E-07	4388	2,24E-03	5,11E-07	SIL2	SIL2
PI10 ES	3,08E-07	3,08E-07	4388	1,35E-03	3,08E-07	SIL2	SIL2
PI20 ES	3,13E-07	3,13E-07	4388	1,37E-03	3,13E-07	SIL2	SIL2

Remark on Maximum SIL reachable:

Even if PI10, PI00S, PI10S, PI20S & PI30S are compliant with a PFD SIL 3, these components are limited by the Hardware Fault Tolerance and the SFF.

The reachable results from internal assessment carried out by BUREAU VERITAS (Ref. WL/WB/BN/CB859/2319881/11/R/12036/0) and based on the Field Experience & FMEA Design obtained from MECANICA PRISMA, SL.

Andreu Sampedro / Quality Manager. 2011.05.05.
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ISO 9001-2008, ISO-TS-29001, API Q1.

Pneumatic Actuators According to PED Directive 97-23-EC, ATEX Directive 94-9-EC, Type Approval (Type Approved Product) SIL 2 (IEC-61508), Cryogenic Services & Gost R Certification.

