



Annex I

No. 3N250623.AFTQ67

- The use of the product [Needle type stop valve, ball type stop valve] must obey the required rules to conservation of SIL3 properties, these rules are recalled in the §6 of the Assessment Report reference: [SIL Capability assessment report].
- The product version of hardware components used for validation and type tests are the following:

Product:	Needle type stop valve, ball type stop valve
Model(s):	N1, N2, CV, TF, RL1, RL2, MV1, MV2, B1, B2, B3, GB1, Q641F, Q644F, GV1, 2R, 3D, SSH-GB31-xxx, SS-GB31-xxx, SS-GB14-DN20-MFM-ALS-DC24VEX, SS-GB31-xxx-63S-ALS-DC24V, SSH-GB31-xxx-63C-DC24VEX-400M-AC12, SSH-Q641F-DN100-FM40-105C-DC24VEX-400M-AC12, 304-Q644F-xxx-FM40-63C-DC24VEX-400M-AC12, SS-GB31-xxx-A-63C-DC24VEX-400M-AC12, SS-Q641F-DN50-FM40-63C-DC24VEX-400M, 304-Q641F-DN50-RF16-63C-DC24VEX-400M, SS-GB31-18M-A-63C-DC24VEX-400M, 304-Q644F-DN50-FM40-63C-DC24VEX-400M, SS-GB33-12M/12M/8-A/A/F-63L-DC24VEX-400M, SS-B14-8-F-63S-DC24VEX-400M, SS-MV51-xxx, SS-GB31-xxx-63S-ALS-DC24V, SS-GB33-10M-TS-63S-ALS-DC24V, SS-GB31-10M-TS-63C-ALS-DC24V, SS-B14-8-F-S-ALS-DC24V, SS-B14-8-F-S-ALS-DC24V, SS-GB31-45M-TS-63S-ALS-DC24V, SS-GB31-25M-A-63S-ALS-DC24V, SS-GB33-25M-A-63S-ALS-DC24V, 304-Q644F-DN50-MF-L-63C-DC24VEX-400M, 500-DN100-PN16, 304-Q641F-DN50-MF-63C, 304-Q641F-DN50-RF-63C, SS-Q641F-xxx-MF-63C-DC24VEX-400M, 304-Q641F-xxx-RF-63C-DC24VEX-400M
Air Supply:	(200~300) kPa
Air Connection:	G3/4

- Acceptable environmental constraints for the system are recalled in the safety Manual. These elements must be checked for each integration operation of the product.
- The SIL 3 capable certified safety instrumented function of the product [Needle type stop valve, ball type stop valve] is the following:
 - SF1: To Close on demand.
 - SF2: To Open on demand.
- Hypothesis used for calculations are presented here under:
 - The mode of operation is Low demand, which means less than 1 trip demand each year;

Component architecture	SIL Capability	Demand frequency	PFDD
Loo1 configuration	SIL2 Low	Low	1.70E-03
Loo2 configuration	SIL3 Low	Low	2.98E-04

Safety function	Failure rate	Undetected dangerous failure rate	Tests intervals	MTR
SF1	2.89E-06	3.88E-07	12months	8h
SF2	2.87E-06	3.86E-07	12months	8h

- The safety integrated level of the safety function using the product [Needle type stop valve, ball type stop valve] shall be calculated taking into account the characteristics of the whole system.