



Certificate no. TAI-FS-C-20-0038

WE HEREBY CERTIFY THAT

Product description PNEUMATIC PILOTED SPRING RETURN VALVE – AUTO AND MANUAL RESET – 3 WAYS AND 5 WAYS 2 POSITIONS

Models 2P179KWXYZ, 2P182KWXYZ, 2P214KWXYZ, 2P215KWXYZ

Manufacturer BIFFI ITALIA S.r.l.
Strada Biffi 165
I-29017 Fiorenzuola d'Arda (PC)

IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARDS

IEC 61508 Parts 1–7:2010

AS RESULT OF THE ASSESSMENT ACCORDING TO THE PROVISION SET OUT IN THE ABOVE-MENTIONED STANDARDS

Summary Report no. TAI-FS-R-20-0074

Expiry date 08.11.2023

Issue date 09.11.2020

09.11.2020, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

Annex to certificate no. TAI-FS-C-20-0038

Type	A
HFT	0
Safety functions	1. De-energize-to-trip operation: <ol style="list-style-type: none"> a. Valve 3/2: to discharge a chamber of a single / double acting pneumatic actuator (or to charge one cylinder chamber of a double acting pneumatic actuator) b. Valve 5/2: to charge one cylinder chamber of a double acting pneumatic actuator and to discharge the other chamber
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	Safety function	λ_{DU} [1/h]	λ_{DD} [1/h]	λ_S [1/h]
2P179KWXYZ, 2P182KWXYZ, 2P214KWXYZ, 2P215KWXYZ - No PST	1	5,20E-09	0,00E+00	9,16E-09
2P179KWXYZ, 2P182KWXYZ, 2P214KWXYZ, 2P215KWXYZ - With PST	1	5,20E-11	5,15E-09	9,16E-09

Systematic capability	3 (Route 1s applied)			
Architectural constraints	Route 1_H:	Applied	Route 2_H:	Applied
	The product can be used in: <ul style="list-style-type: none"> • single channel configuration: <ul style="list-style-type: none"> ○ up to SIL 2 without external diagnostic tests ○ up to SIL 3 considering external diagnostic tests • double channel configuration: up to SIL 3 			

- Remarks:**
- For further details, including environmental conditions, limitations of use, lifetime, failure rates traceability, mean repair times, common cause factors and systematic capability constraints, make reference to Safety Manual SM 004.

END OF CERTIFICATE



Ing. Crescenzo Di Fratta