

Certificate of Conformity No.: 28714042

Manufacturer: Orton S.r.l.
Via Stendhal, 65
I-20144 Milano (MI)

Specifications: IEC 61508-1+7:2010

Product: Centred Rubber Seated Butterfly Valve

Type: Series DS

RESULT:

As per the TÜV Rheinland Italia Report No. FS 28714042 Rev. 0 we declare that the product meets the below requirements:

IEC 61508: 2010, part 1 to 7

Functional Safety of electrical/electronic/programmable electronic safety related systems; Type A, Low Demand Mode, HFT=0

Safety Action	λ_D [1/h]	$\lambda_{DD(PS)}$ [1/h]	Systematic Capability
Close / Open	2,61E-08	1,82E-08	2

The above values are compatible with SIL 2.
NOTE: Route 2_H applied.

The requirements of minimum hardware fault tolerance (HFT) according table 6 of IEC 61511-1 have to be observed.

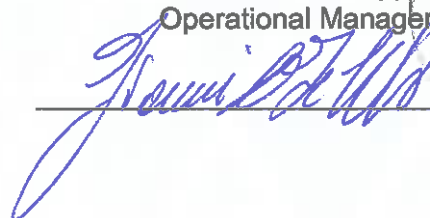
Expiry date: 2017-03-31

Location: Milan

Date: 2014-03-05

TÜV Rheinland Italia S.r.l.
Via Enrico Mattei, 3
I - 20010 Pogliano Milanese

Giovanni De Felippis
Operational Manager




**Attachment 1 to
Certificate of Conformity No.: 28714042**



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		Test Interval Frequency (months)				
		6	12	24	36	48
Partial Stroke frequency (months)	1	2,44E-05	4,15E-05	7,58E-05	1,10E-04	1,44E-04
	2	3,11E-05	4,82E-05	8,24E-05	1,17E-04	1,51E-04
	3	3,77E-05	5,49E-05	8,91E-05	1,23E-04	1,58E-04
	6		7,48E-05	1,09E-04	1,43E-04	1,78E-04
	9				1,63E-04	
	12			1,49E-04	1,83E-04	2,18E-04

PFD_{AVG} values according to IEC 61508 for different values of TI and TI_{PS}

Test Interval Frequency (months)				
6	12	24	36	48
5,77E-05	1,15E-04	2,29E-04	3,43E-04	4,57E-04

PFD_{AVG} values according to IEC 61508 for different values of TI (no Partial Stroke Test)

Location: Milan

Date: 2014-03-05

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