

CERTIFICATE ■ CERTIFICATO ■ ZERTIFIKAT ■ SERTIFIKA ■ CERTIFICADO ■ گواهینامه ■ ΠΙΣΤΟΠΟΙΗΤΙΚΟ ■ 証明書 ■ 証明書 ■ شهادة



# C E R T I F I C A T E

**Certificate no. 17-SIL-0010003-04-TIC**

WE HEREBY CERTIFY THAT

**Product description FLOATING BALL VALVES**

**Models Series 10, 40, 40W, 48, 49, 70HP, 70HPW**

**Manufacturer RBR VALVOLE S.p.A.  
Via Giacomo Brodolini 2/4 - 20010 Pogliano Milanese MI**

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. RC-0918-SIL-TIC-PC-0010003-17-04**

**Expiry date 17.09.2021**

**Note**

This certificate is issued upon the request of the manufacturer as voluntary certification; it does not include the production surveillance.  
This certificate does not allow the manufacturer to use the safety mark of TÜV INTERCERT.



Reggio Emilia, 18.09.2018

Dipl. Ing. Feridoon Sergizzarea  
TÜV INTERCERT Certification Body



# C E R T I F I C A T E

ANNEX to Certificate no. 17-SIL-0010003-04-TIC

|                   |  |
|-------------------|--|
| Type              | A  |
| HFT               | 0  |
| Safety functions  | 1. Close / Open upon the demand of the actuation system<br>2. Close upon the demand of the actuation system, with inline tightness when in closed position |
| Mode of operation | Low Demand Mode  |

| Random failure rates |                 |                      |                      |                   |
|----------------------|-----------------|----------------------|----------------------|-------------------|
| Configuration        | Safety function | $\lambda_{DU}$ [1/h] | $\lambda_{DD}$ [1/h] | $\lambda_S$ [1/h] |
| Floating - No PST    | 1               | 4,05E-08             | 0,00E+00             | 0,00E+00          |
| Floating - With PST  | 1               | 3,64E-09             | 3,68E-08             | 0,00E+00          |
| Floating - No PST    | 2               | 4,77E-08             | 0,00E+00             | 0,00E+00          |
| Floating - With PST  | 2               | 1,09E-08             | 3,68E-08             | 0,00E+00          |

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

**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 37.004.

END OF CERTIFICATE

Reggio Emilia, 18.09.2018

  
Dipl. Ing. Feridoon Sergizzarea  
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