

**Certificate of Conformity No.: 28713173**

**Manufacturer:** Emerson Process Management Valve Automation, Inc.  
2500 Park Avenue West  
Mansfield, Ohio 44906  
USA

**Specifications:** IEC 61508-1+7:2010

**Product:** Quarter Turn Rotary Vane Operator

**Type** Series RV

**RESULT:**

As per the TÜV Rheinland Italia Report No. FS 28713173 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	$\lambda_D$ [1/h]	$\lambda_{DD(PS)}$ [1/h]	Systematic Capability
Close / Open	5,39E-08	4,90E-08	3

The above values are compatible with SIL 3.

For SFF values with external diagnostic tests, carried out according to definition 3.8.7 of IEC 61508-4, see what written in the Safety Manual.

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

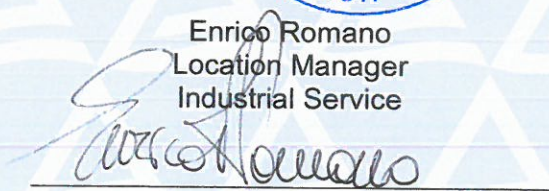
Expiry date: **2016-06-30**

Location: **Milan**

Date: **2013-06-10**



Enrico Romano  
Location Manager  
Industrial Service





**Attachment 1 to  
Certificate of Conformity No.: 28713173**



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**Equipment:** Quarter Turn Rotary Vane Operator

**Type** Series RV

		Test Interval Frequency (months)				
		6	12	24	36	48
Partial Stroke frequency (months)	1	2,99E-05	4,07E-05	6,22E-05	8,36E-05	1,05E-04
	2	4,78E-05	5,86E-05	8,00E-05	1,02E-04	1,23E-04
	3	6,57E-05	7,64E-05	9,79E-05	1,19E-04	1,41E-04
	6		1,30E-04	1,52E-04	1,73E-04	1,95E-04
	9				2,27E-04	
	12			2,59E-04	2,80E-04	3,02E-04

PFD<sub>AVG</sub> values according to IEC 61508 for different values of TI and TI<sub>PS</sub>: Safety Action: Close / Open

Test Interval Frequency (months)				
6	12	24	36	48
1,19E-04	2,37E-04	4,74E-04	7,10E-04	9,46E-04

PFD<sub>AVG</sub> values according to IEC 61508 for different values of TI (no Partial Stroke Test):  
Safety Action: Close / Open

Location: **Milan**

Date: **2013-06-10**