TÜVRheinland®

Certificate of Conformity No.: 28708245

Manufacturer: Dafram S.p.A.
Via Vito Vignoli, 9
I-20146 Milano

Specifications: IEC 61508-1÷7:2000

Date: 2009-01-30

Equipment: Floating Ball Valves

Type 16R, 16MC, 16ML, 40R, 40MC, 40ML, 16RE, 16RL, 40RE, 150MC, 300MC, 150RC, 300RC, 40ME, 16TE, 16TL, 40TE, 40TL, 16TM, 16TC, 40TM, 40TC, 150TM, 150TC, 300TM, 600R, 600T, 16VK, 16VL, 40VK, 40VL, 63TL, 100TL, 900T, 900R, 1500T, 1500R, 2500T, 2500R, 16ST.A, 150ST.A, 40ST.A, 300ST.A, 16WT, 150WT, 40WT, 300WT, D300F, D300R, D800F, D800R, D1500F, D1500R, D2500F, D2500R

RESULT:

As per the TÜV Rheinland Italia Report No. FS 28708245 Rev. 1.1 dated 2009-01-26, we declare that the product meets the below requirements:

IEC 61508: 2000, part 1 to 7

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

λ_S [1/h]	λ_D [1/h]	λ_{DU} [1/h]	λ_{DD} [1/h]	SFF (No Partial Stroke Test)	SFF (Partial Stroke Test)
$1{,}66 \cdot 10^{-8}$	$1{,}63 \cdot 10^{-9}$	$4{,}08 \cdot 10^{-10}$	$1{,}22 \cdot 10^{-9}$	91,0 %	99,1 %

PFD_{AVG} value for TI (Test Interval): 1 year = $7{,}18 \cdot 10^{-6}$

For PFD_{AVG} values for different values of TI and TI_{PS} (Test Interval Partial Stroke): see TÜV Rheinland Italia Report No. FS 28708245 Rev. 1.1 dated 2009-12-26.

As per these values, the aforementioned product can be used up to SIL 3 as a "single device".

Expiry date: **2011-12-31**

Location: **Milan** Date: **2009-01-30**

Test Laboratory for Pressure Equipment

TÜV Rheinland Industrie Service GmbH
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TÜVRheinland Italia Industrial Services