

Certificate of Conformity No.: 28716211

Manufacturer: Oleodinamica Reva S.r.l.
Via Isacchi, 3
I-42124 Reggio Emilia (RE)

Specifications: IEC 61508-1÷7:2010

Product: 3 way hydraulic operated valves

Type: Series VD3

RESULT:

As per the TÜV Rheinland Italia Report No. FS 28716211 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 Function | λ_D [1/h] | $\lambda_{DD(PS)}$ [1/h] | SFF (without PST) | SFF (with PST) | Systematic Capability |
|--|-------------------|--------------------------|-------------------|----------------|-----------------------|
| Case 1a) Valve N. C.; X not piloted | 9,15E-09 | 9,05E-09 | >60 % | >99 % | 2 |
| Case 1b) Valve N. C.; X piloted | 1,81E-07 | 1,79E-07 | >60 % | >99 % | 2 |
| Case 2a) Valve N. O.; X piloted | 1,65E-07 | 1,63E-07 | >60 % | >99 % | 2 |
| Case 2b) Valve N. O.; X not piloted | 9,28E-08 | 9,19E-08 | <60 % | >99 % | 2 |

The above values are compatible with SIL 2.

The requirements of minimum hardware fault tolerance (HFT) according to par. 11.4.3 of IEC 61511-1 have to be observed.

For further details, see what written in the Safety Manual.

Expiry date: 2019-07-31

--- End document

Location **Milan**
Date **2016-07-15**

Diego Sirtori
Business Stream Manager

