

Certificate of Conformity No.: **28716254**

**Manufacturer:** Emerson Process Management  
**Valve Automation, Inc.**  
 2500 Park Avenue West  
 Mansfield, OH 44906  
 United States of America

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

**Product:** Electro-hydraulic spring return actuator

**Type:** Bettis™ series EHO

**RESULT:**

As per the TÜV Rheinland Italia Report No. FS 28716254 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**

Circuit diagram	$\lambda_D$ [1/h]	$\lambda_{DD(PS)}$ [1/h]	PFD <sub>AVG</sub> (TI=1 y)	PFD <sub>AVG</sub> (TI=1 y, TI <sub>PS</sub> =1 m)	PFD <sub>AVG</sub> (TI=1 y, TI <sub>PS</sub> =3 m)	Systematic Capability
<b>11636-S</b> (with Hawe SOV)	9,99E-08	9,45E-08	4,40E-04	6,04E-05	1,29E-04	3
<b>11636-S</b> (with Bifold FluidPower SOV FP05)	1,98E-07	1,91E-07	8,73E-04	1,05E-04	2,44E-04	3
<b>11636-S</b> (with Bifold FluidPower SOV FP15)	2,79E-07	2,68E-07	1,23E-03	1,52E-04	3,48E-04	3
<b>11636-S</b> (with Thompson Valves SOV)	5,92E-08	5,43E-08	2,61E-04	4,29E-05	8,26E-05	3
<b>11828-S</b> (with Hawe SOV)	9,99E-08	9,45E-08	4,40E-04	6,04E-05	1,29E-04	3
<b>11828-S</b> (with Bifold FluidPower SOV FP05)	1,98E-07	1,91E-07	8,73E-04	1,05E-04	2,44E-04	3
<b>11828-S</b> (with Bifold FluidPower SOV FP15)	2,79E-07	2,68E-07	1,23E-03	1,52E-04	3,48E-04	3
<b>11828-S</b> (with Thompson Valves SOV)	5,92E-08	5,43E-08	2,61E-04	4,29E-05	8,26E-05	3

The above values are compatible with SIL 2 or SIL 3, depending on specific values of test intervals.

The requirements of minimum HFT according to par. 11.4.3 of IEC 61511-1 have to be observed.

The product can be used up to SIL 2 without external diagnostics.

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

**Expiry date: 2019-08-31**

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Location **Milan**  
 Date **2016-08-29**

Diego Sirtori  
 Business Stream Manager