



Certificate / Certificat Zertifikat / 合格証

descote 1303056 C001

exida hereby confirms that the:

descote Bellows Sealed Globe Valves Series 2100, 2500 and 4025, Gland Type Globe Valves Series 1500

descote s.a.s
Feyzin, France

Have been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-2

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A Device

**PFD_{AVG} and Architecture Constraints
must be verified for each application**

Safety Function:

The valve will move to the designed safe position per the actuator design within the specified safety time.

Application Restrictions:

The unit must be properly designed into a Safety Instrumented Function per the Installation, Operations and Maintenance and Safety Manuals for the valves.



Peter L.
Evaluating Assessor

C. Krupke
Certifying Assessor

The manufacturer
may use the mark:



Revision 4.0 February 26, 2024
Surveillance Audit Due
March 31, 2027



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Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A Device

PFD_{AVG} and Architecture Constraints must be verified for each application

Systematic Capability :

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

Random Capability:

The SIL limit imposed by the Architectural Constraints must be met for each element.

IEC 61508 Failure Rates in FIT*

V1 - descote Bellows Sealed Globe Valves Series 2100, 2500 and 4025

V2 – descote Gland Type Globe Valves Series 1500

Valve and application	Fully closed			Tight shut off			Fully Open		
	λ_{Safe}	λ_{DD}	λ_{DU}	λ_{Safe}	λ_{DD}	λ_{DU}	λ_{Safe}	λ_{DD}	λ_{DU}
V1 Clean service	0	0	470	0	0	1206	201	0	269
V1 Clean Service with PVST	0	140	330	0	140	1066	201	140	129
V1 Severe service	0	0	890	0	0	2352	402	0	488
V1 Severe Service with PVST	0	251	639	0	251	2101	402	251	237
V2 Clean service	0	0	523	0	0	1259	201	0	322
V2 Clean Service with PVST	0	172	351	0	172	1087	201	172	150
V2 Severe service	0	0	944	0	0	2406	402	0	542
V2 Severe Service with PVST	0	283	661	0	283	2123	402	283	259

*FIT = 1 failure / 10⁹ hours

PVST = Partial Valve Stroke Test of a final element Device

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFD_{avg} considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each element must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

Assessment Report: descote 1303-056-C R003 V4 R0

Safety Manual: : descote Safety manual Valves 40-60-022 Rev 3

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