



# Certificate / Certificat Zertifikat / 合格証

descote 1303056 C003

*exida* hereby confirms that the:

**descote Tank Storage Valves  
Models 2200 and 2300**

**descote s.a.s  
Feyzin, France**

The manufacturer  
may use the mark:



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<sub>AVG</sub> and Architecture Constraints  
must be verified for each application**

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

**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

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**Systematic Capability: SC 3 (SIL 3 Capable)**

**Random Capability: Type A Device**

**PFD<sub>AVG</sub> 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 – internal check valve acts as a secondary safety closure device

V2 – internal check valve acts as a primary safety closure device

Valve and application	Fully closed			Tight shut off		
	$\lambda_{Safe}$	$\lambda_{DD}$	$\lambda_{DU}$	$\lambda_{Safe}$	$\lambda_{DD}$	$\lambda_{DU}$
V1 Clean service	0	0	193	0	0	239
V1 Clean Service with PVST	0	88	105	0	88	151
V2 Clean service	0	0	211	0	0	937

\*FIT = 1 failure / 10<sup>9</sup> 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<sub>avg</sub> 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



80 N Main St  
Sellersville, PA 18960

**Bellows Tank Storage  
Valves Models 2200  
and 2300**