



The manufacturer
may use the mark:



Revision 1.0 July 8, 2026
Surveillance Audit Due
August 01, 2029



Certificate / Certificat Zertifikat / 合格証

Barksdale 2312073 C001

exida hereby confirms that the:

**Pressure switches D.T, D.X, B.T, B.X,
X1T, 8000, 9671x, 9681x, 9692x series**

**Barksdale GmbH
Reichelsheim
Germany**

Has 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, Element

SIL 2 @ HFT=0; SIL 3 @ HFT = 1; Route 2_H

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

Safety Function:

The micro switch will de-energize when the input pressure rises above, or falls below, the set-point within the stated safety accuracy.

Application Restrictions:

The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.



Evaluating Assessor

Certifying Assessor

Barksdale 2312073 C001

Systematic Capability: SC 3 (SIL 3 Capable)**Random Capability: Type A, Element****SIL 2 @ HFT=0; SIL 3 @ HFT = 1; Route 2_H****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. This element meets *exida* criteria for Route 2_H.

IEC 61508 Failure Rates in FIT*

Model	Increasing pressure detection				Decreasing pressure detection			
	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
9681x, 9692x	0	132	0	82	0	145	0	69
9681x, 9692x (red.)	0	252	27	55	0	265	27	42
9671x	0	140	0	72	0	144	0	68
9671x (red.)	0	260	27	45	0	264	27	41
B.T / B.X	0	128	0	65	0	140	0	53
B.T / B.X (red.)	0	252	32	32	0	266	29	23
D.T / D.X	0	127	0	57	0	137	0	47
D.T / D.X (red.)	0	253	29	27	0	260	32	14
DP.T	0	187	0	119	0	197	0	109
DP.T (red.)	0	313	29	89	0	320	32	77
S8000 / X1T	0	130	0	86	0	145	0	71

* FIT = 1 failure / 10⁹ hours**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: Barksdale 2312-073-C IEC 61508 Assessment Report
Pressure switches R004 V1R0

Safety Manual: Safety Manual, 923-3004 -



80 N Main St
Sellersville, PA 18960