



Certificate / Certificat Zertifikat / 合格証

ASH 2002235 C001

exida hereby confirms that the:

E2 Series Pressure Transmitter

**Ashcroft Inc.
Stratford, CT - USA**

The manufacturer
may use the mark:



Revision 1.0 March 28, 2024
Surveillance Audit Due
April 1, 2027

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-3

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type B Element

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

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

Safety Function:

The E2 Series Transmitter will measure a process pressure and transmit a proportional analog signal 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

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Systematic Capability: SC 3 (SIL 3 Capable)**Random Capability: Type B Element****SIL 2 @ HFT=0; SIL 3 @ HFT = 1; Route 2_H****PFH/PFD_{avg} and Architecture Constraints
must be verified for each application****E2 Series Pressure
Transmitter****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^{1, 2}

Application/Device/Configuration	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
4-20mA	0	68	144	83
1-5V	0	71	164	90

¹FIT = 1 failure / 10⁻⁹ hours

²Note: The 0-10V output configuration is not covered by this certificate.

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/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: ASH 20-02-235 R002 V1R0 (or later)

Safety Manual: SM-001 E2 Series Safety Manual



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