



# Certificate / Certificat Zertifikat / 合格証

UEC 1210073 C001

*exida* hereby confirms that the:

## One Series Safety Transmitter

**United Electric Controls  
Watertown, MA - USA**

The manufacturer  
may use the mark:



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<sub>H</sub>**

**PFH/PFD<sub>avg</sub> and Architecture Constraints  
must be verified for each application**

Revision 1.7 May 8, 2024  
Surveillance Audit Due  
March 1, 2027

### Safety Function:

The One Series Safety Transmitter will measure pressure or temperature 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

UEC 1210073 C001

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**Random Capability: Type B Element**

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One Series Safety 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<sub>H</sub>.

**IEC 61508 Failure Rates in FIT\***

Application/Device/Configuration	$\lambda_{SD}$	$\lambda_{SU}$	$\lambda_{DD}$	$\lambda_{DU}$
Pressure or Temperature, Current Output with IAW	0	48	333	26
Pressure or Temperature, Current Output without IAW	0	61	304	31
Pressure or Temperature, AC or DC Relay Output with IAW	205	61	155	25
Pressure or Temperature, AC or DC Relay Output without IAW	145	96	145	36
Pressure or Temperature, Status Output with IAW	137	84	145	28

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

**SIL Verification:**

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/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:** UEC 12/10-073 R002 V2R1 (or later)

**Safety Manual:** One ST-SM-02, Rev 2 (or later)



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