



# Certificate / Certificat Zertifikat / 合格証

MII 1506150 C001

*exida* hereby confirms that the:

## **STZ Dual Sensor Transmitter Moore Industries – International North Hills, CA USA**

Has been assessed per the relevant requirements of:

**IEC 61508 : 2010 Parts 1-7**

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>**

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

Safety Function:

The STZ Series Transmitter receives sensor signals from one or two sensors and transmits a proportional signal within its stated safety accuracy.

Application Restrictions:

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

The manufacturer may use the mark:



Valid until October 1, 2018  
Revision 1.1 May 25, 2016



ANSI Accredited Program  
PRODUCT CERTIFICATION  
#1004



Evaluating Assessor

Certifying Assessor

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

**Random Capability: Type B Element**

**SIL 1 @ HFT=0; SIL 3 @ HFT=1; Route 2<sub>H</sub>**

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

STZ Dual Sensor 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.

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

Model	$\lambda_s$	$\lambda_{DD}$	$\lambda_{DU}$
STZ/TPRG/4-20MA/12-42DC [DIN]	216	166	40
STZ/TPRG/4-20MA/12-42DC [HPP]	201	138	29
STZ/TPRG/4-20MA/12-42DC [HP]	202	136	36

\* 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 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: MII 15-06-150 R001 V1 R1

Safety Manual: STZ User's Manual 238-760-00A



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