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_H

PFH/PFD_{avg} 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:

Revision 3.0 October 4, 2021
Surveillance Audit Due
October 1, 2024

ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY
#1004

exida Certification

John C Yozallinas
Evaluating Assessor

Certifying Assessor

Certificate / Certificat / Zertifikat / 合格証

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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

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. This element meets *exida* criteria for Route 2_H.

IEC 61508 Failure Rates in FIT*

Options for STZ/TPRG/4-20MA/12-42DC (fail outside of range)	λ_S	λ_{DD}	λ_{DU}
STZ/TPRG/4-20MA/12-42DC [DIN]	218	163	40
STZ/TPRG/4-20MA/12-42DC/ -AIS [DIN]	235	205	41
STZ/TPRG/4-20MA/12-42DC [HPP]	199	129	29
STZ/TPRG/4-20MA/12-42DC [HP]	206	136	36

* FIT = 1 failure / 10^9 hours

Confirm failure rates with Moore Industries FMEDA for other options and input types (RTD, thermocouple, or millivolt).

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: MII 15-06-150 R001 V3 R1 (or later)

Safety Manual: # 238-760-00L (or later)

80 N Main St
Sellersville, PA 18960