Certificate / Certificat

Zertifikat / 合格証

MII 1602069 C001

exida hereby confirms that the:

SLD Safety Loop Display

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 Integrity: SC3 (SIL 3 Capable)

Random Integrity: Type A Non-interfering

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

Safety Function:
When used in series with a 4-20 mA device the display will pass the loop current unchanged and will not interfere with the function of the device except to drive current to a safe state (< min or > max range).

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

exida Certification

John C Yozallinas
Evaluating Assessor

Certifying Assessor

The manufacturer may use the mark:

exida CERTIFIED IEC 61508 SIL 3 CAPABLE

Revision 1.0 April 5, 2016
Surveillance Audit Due
May 1, 2019

ANSI Accredited Program
PRODUCT CERTIFICATION
#1004

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Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A Non-Interfering

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

SLD

Safety Loop Display

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*

Device	λ_{Safe}	λ_{DU}
SLD Safety Loop Display Profile 1 (Control Room use)	12	2
SLD Safety Loop Display Profile 2 (Field use)	21	2
SLD Safety Loop Display LMD Option Profile 1	6	2
SLD Safety Loop Display LMD Option Profile 2	11	2

* FIT = 1 failure / 10^9 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: MII16-02-069 R001 V1R1 Assessment Report

Safety Manual: 178-731-00A Revision A or later

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Sellersville, PA 18960