



Certificate / Certificat Zertifikat / 合格証

FRS 091023 C002

exida hereby confirms that the:

DeltaV Voltage Monitor Module

**Emerson Process Management
Fisher Rosemount Systems, Inc.
Austin, TX USA**

Has been assessed per the relevant requirements of:

IEC 61508 Parts 1, 2, 3

and meets requirements providing a level of integrity to:

Systematic Integrity: SIL 3 Capable

**Random Integrity for Type A Device:
SIL 3 @ HFT=0**

The manufacturer
may use the mark:



Valid until October 1, 2014

Revision 1.3 May 6, 2013

Safety Function:

The DeltaV Voltage Monitor Module will control its output state in accordance with the input signal.

Application Restrictions:

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



ANSI Accredited Program
PRODUCT CERTIFICATION
#1004



Michael Medoff

Evaluating Assessor

William W. Goble

Certifying Assessor

Systematic Integrity: SIL 3 Capable
Random Integrity for Type A Device:
SIL 3 @ HFT=0

DeltaV Voltage Monitor
 Emerson Process
 Management
 Austin, TX

SIL 3 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 without "prior use" justification by end user or diverse technology redundancy in the design.

IEC 61508 Failure Rates in FIT*

Failure Categories	λ_{sd}	λ_{su}	λ_{dd}	λ_{du}
Voltage Monitor Module	1	134	0	0.72

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 subsystem must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

* FIT = 1 failure / 10^9 hours

The following documents are a mandatory part of certification:

Assessment Report: FRS 09/10-23 R001 V1 R2

Safety Manual: D800032X012



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