

The manufacturer
may use the mark:



Reports:

FRS 06-11-27 R002 FMEDA
Report V1 R1

FRS 07-11-05 R002
Assessment Report V1 R1

Validity:

This assessment is valid for
the DeltaV Voltage Monitor
Accessory, KJ2231X1-EB1

This assessment is valid
until May 1 2010.

Revision 1.3 June 16, 2008


exida
Certification S.A.

Certificate / Certificat Zertifikat / 認証

FRS 060530 C002

exida hereby confirms that the:

**DeltaV Voltage Monitor Accessory,
KJ2231X1- EB1**

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

Has been assessed per the relevant requirements of:

IEC 61508 Parts 1, 2

and meets requirements providing a level of integrity to:

Systematic Integrity: SIL 3 Capable

**Random Integrity for Type A device:
SIL3, Single Module;**

**Therefore can be used as part of a safety
instrumented system as per IEC 61511**

Safety Function:

The DeltaV Voltage Monitor Accessory 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.


Michael Medloff

Product Assessor

[Signature]

Auditor

Systematic Integrity: SIL 3 Capable
Random Integrity for Type A device:
SIL3, Single Module;

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 Probabilities

Table 1: DeltaV Voltage Monitor Accessory Failure Rates

Failure category	Failure rate (in FIT)
Fail Dangerous Undetected	0.72
Fail Safe Detected	1.0
Fail Safe Undetected	68.0
No Effect	65.5

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.

