

The manufacturer
may use the mark:



Reports:

ROS 06-09-33 R001 V1 R1
Assessment Report

ROS 04/08-19 R003 V2 R1
FMEDA Report

Validity:

This assessment is valid for
the 3144P Temperature
Transmitter Series.

This assessment is valid
until March 1, 2013.

Revision 1.3 February 5, 2010


exida[®]
Certification S.A.

Certificate / Certificat Zertifikat / 合格証

ROS 060933 C001

exida hereby confirms that the:

3144P Safety Certified Temperature Transmitter

Device Revision 4.1 and Above

**Rosemount, Inc.
Chanhassen, MN**

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
(SIL 3 Capable Software)**

**Random Integrity for Type B Device:
SIL 3 @ HFT=1 / SIL 2 @ HFT=0**

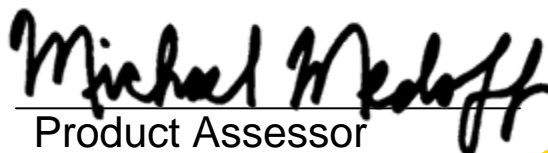
Safety Function:

The 3144P Temperature Transmitter will measure temperature
within the stated safety accuracy.

Application Restrictions:

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




Product Assessor


Auditor

ROS 060933 C001

**Systematic Integrity: SIL 3 Capable
(SIL 3 Capable Software)**

**Random Integrity for Type B Device:
SIL 3 @ HFT=1 / SIL 2 @ HFT=0**

**3144P Safety Certified
Temperature
Transmitter Series**

**Rosemount, Inc.
Chanhasen, MN - USA**

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*

Device	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	SFF
3144P SIS Single T/C mode	0	108	367	41	92.1%
3144P SIS Dual T/C mode	0	112	377	41	92.3%
3144P SIS Single RTD mode	0	112	359	39	92.4%
3144P SIS Dual RTD mode (3-wire RTD)	0	116	370	38	92.7%

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



Form	Version	Date
C61508	2.10	Nov 2009