

Rosemount 3051S Pressure Transmitter Safety Certified to IEC 61508 Certificate of FMEDA Data

<p>Customer Information</p> <p>Name: PROCESS MANAGEMENT LTD PO: 0207629</p>	<p>Manufacturer Information</p> <p>Sales Order: 1862187</p>
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Rosemount certifies that the Rosemount 3051S pressure transmitter with serial number listed below was manufactured to IEC 61508 and has the following failure rates and probability of failure on demand values documented in the referenced report(s).

Safety Certification:

Certified to IEC 61508 (SIL2 - 1001/SIL3 1002, 2003) By Exida.
See attached Exida certificate number ROS 061218 C001.



Failure Rate Data:

Failure rate data was completed via Failure Mode Effect Diagnostic Analysis (FMEDA) with boundary of transmitter sensor to output electronics per IEC 61508 Type B device.

3051S-C / 3051S-L:

Failure Categories	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	SFF
Low trip	33	143	297	37	93.1%
High trip	59	143	323	37	93.1%
High & Low trip	0	143	356	37	93.1%

All λ figures are in FITS
Probability of Failure on Demand:
PFDAVG = 1.65 E-04 failures/hour
(Assumptions: MTTR = 24 hrs.,
Functional Check Frequency = 12 months)

3051S-T:

Failure Categories	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	SFF
Low trip	26	122	282	34	93.1%
High trip	58	122	314	34	93.1%
High & Low trip	0	122	340	34	93.1%

All λ figures are in FITS
Probability of Failure on Demand:
PFDAVG = 1.52 E-04 failures/hour
(Assumptions: MTTR = 24 hrs.,
Functional Check Frequency = 12 months)

References:

Exida FMEDA Report ROS 05/05-05 R001
Exida Assessment Report ROS 06-12-18 R001

Model Number	Equipment Name	Serial Number	Tag Number
Date Added to Certificate: 10/22/2007 5:04:49PM			
3051S1CD2A2A11A1AC1K5M5QT	Pressure Transmitter	0253736	FT-1202



Tim Layer
Director of Quality