

The manufacturer  
may use the mark:



#### Reports:

YEC 11-10-046 R003 V1R2  
Assessment Report

YEC 11-10-046 R002 V1R2  
FMEDA Report

#### Validity:

This assessment is valid for  
the EJA DP and Pressure  
Transmitter, E Series and J  
Series .

This assessment is valid until  
July 1, 2015.

Revision 1.2 August 29, 2012



# Certificate / Certificat Zertifikat / 合格証

YEC 1110046 C001

*exida* hereby confirms that the:

## EJA DP and Pressure Transmitter, E Series and J Series

**Yokogawa Electric Corporation  
Musashino-shi, Tokyo, Japan**

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: SIL 3 Capable**

**Random Integrity: Type B Element**

**PFD<sub>AVG</sub> and Architecture Constraints  
must be verified for each application**

#### Safety Function:

An EJA DP and Pressure Transmitter, E Series and J Series will  
measure pressure and output a 4-20 mA signal within the stated  
safety accuracy

#### Application Restrictions:

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



Evaluating Assessor

Certifying Assessor

YEC 1110046 C001

**Systematic Integrity: SIL 3 Capable****Random Integrity: Type B Element****PFD<sub>AVG</sub> and Architecture Constraints  
must be verified for each application****EJA DP and Pressure  
Transmitter, E Series  
and J Series****Yokogawa Electric  
Corporation****Musashino-shi, Tokyo,  
Japan****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	$\lambda_{SD}$	$\lambda_{SU}$	$\lambda_{DD}$	$\lambda_{DU}$
EJA DP and Pressure Transmitter, E Series and J Series without Remote Seal	0	54	331	39

**SIL Verification:**

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFD<sub>AVG</sub> 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<sup>9</sup> hours



Form	Version	Date
C61508	2.7-2	Mar 2011