



Certificate of Conformity to IEC 61508 / IEC 61511
Assessed in terms of systematic capability for use
in system up to SIL 3.

For random integrity the whole final element
configuration must be verified for each application.

Functional Safety of Safety-Related Programmable Electronic Systems

The **Position Monitors Type IQ,AQ,DQ,SRX,SRA,SLR and VSD series produced by IMTEX CONTROLS Ltd** have been assessed and are considered capable in terms of systematic capability for use in systems up to SIL 3 low demand safety function. As these devices only forms part of a final element the random failure rate SIL integrity must be verified for each application configuration.

The assessment was based on the assumptions, data provided and recommendations given in:

- **Technis Report No. T319 Issue 3.0;**
- **ESC assessment report B134_FSA001_(5.0).**

The system was assessed against failure mode:

- **The stroke limit device fails to indicate correct position;**
- **Potentiometer type; fails to monitor valve position to within 10% of current position;**
- **Non-contact sensor; fails to monitor valve position to within 5% of current position.**

The assessment was carried out to determine compliance with IEC 61508 with regards to:

- Random Hardware Failures against IEC61508 (2010 edition);
 - Predicted failure rate:
 - Single stroke limit device dangerous failure <0.1 E-6/hour;
 - Single Potentiometer dangerous failure <1.0 E-6/hour;
 - Single Non-contact sensor dangerous failure <0.2 E-6/hour.
 - Architectural Constraints Type A (this component forms part of the diagnostic circuit);
- Systematic against IEC 61511, prior use, suitable up to SIL 3.

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Member of the IEC61508 committee

Renewal Date: December 2016, valid to December 2018

(B134_FSA001 assessment conducted in 23/02/2013)

Certificate: B134_CT002_(4.0)

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