

# Certificate of Conformity to IEC 61508

## Safety Integrity Level (SIL) 2

*Functional Safety of Safety-Related Programmable Electronic Systems*

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**The 'SmartPurge ATEX Certified Intelligent Purge and Pressurise System SP2'**

**Designed and manufactured by**

**Expo Technologies Ltd**  
**Summer Road, Thames Ditton, Surrey, KT7 0RH, UK**

The above system has been assessed and is considered capable for use in a SIL2 high demand safety function. The assessment was based on the assumptions and data provided in:

- ESC Ltd Report No. A127\_SV001\_(2.0)

The system assessed comprises of the following modules in full redundant configuration:

- Pressure Transmitter
- Logic Board
- Relay

With the output normally energised, de-energise to safe state, the estimated frequency of dangerous failure per hour is  $2.2E-7$  (providing a minimum proof test interval of 1 year);

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

- Random Hardware Failures;
- Minimum Architecture.



Managing Director: Kenneth G L Simpson  
Member of IEC61508 and IEC 61511 committees  
Assessment Date: August 2011

*[Certificate: A127\_CT001\_(2.0)]*