

SIL DECLARATION OF CONFORMITY

We, Servomex Group Limited of the address below declare that the:

2223A Oxygen Transmitter

Is suitable for use in safety instrumented systems in respect of hardware safety integrity according to IEC 61508. The usable safety function is the measurement of oxygen concentration to the level of performance specified in the product's literature. The safety instructions in the Safety Manual (Part No. 02223006A) shall be observed.

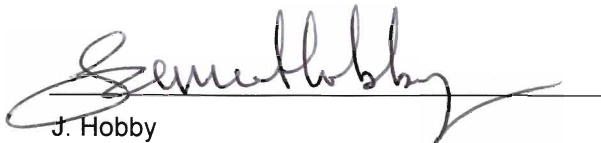
Safety Related Characteristics		Internal Press/Flow Enabled		Internal Press/Flow Disabled	
		Reading Low	Reading High	Reading Low	Reading High
	Device type	B			
SIL	Safety Integrity Level	2			
HFT	Hardware Fault Tolerance	0			
λ_s	Safe failure rate	2.2	2.4	1.45	1.7
λ_{DD}	Dangerous detected failure rate	1.4	1.2	0.75	0.5
λ_{DU}	Dangerous undetected failure rate	0.3	0.3	0.2	0.19
SFF	Safe Failure Fraction	91%	92%	91%	92%
PFD_{AVG}	Average Probability of Failure on Demand	1.3×10^{-3}	1.3×10^{-3}	9×10^{-4}	8×10^{-4}

The safety related characteristics are valid for low demand mode of operation in a 1oo1 (simplex) architecture. Failure rates were predicted from an FMEA (Failure Mode and Effects Analysis) according to IEC 61508. All failure rates are expressed in failures per million hours (fpmh). The PFD_{AVG} is based on a Mean time To Repair (MTTR) of 24 hours and a proof test interval (T_i) of 8760 hours.

FMEA report references:

Technis (www.technis.org.uk) FMEA report T148 Issue 2

Dated:



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