



Controlair, LLC  
 8 Columbia Dr  
 Amherst NH 03031  
 United States

# Certificate of Compliance to IEC 61508

**FM Approvals**  
 Certifies herewith that the

Type 6500/6600 Volume Booster  
 (Safety Manual 441-622-149)

**Complies with the relevant requirements of standards listed below:**

Standards	Description	Compliance
IEC 61508-1: 2010	Functional Safety of Electrical/Electronic/Programmable Electronic Safety-Related Systems - General Requirements	Part 1
IEC 61508-2: 2010	Functional Safety of Electrical/Electronic/Programmable Electronic Safety-Related Systems	Part 2

And therefore

**IS DECLARED "FIT FOR USE" IN A SIL 3, 2, OR 1  
 Low Demand SAFETY APPLICATION**

Models	Type	SIL	HFT	SFF	PFD	$\lambda_{SD}$	$\lambda_{SU}$	$\lambda_{DD}$	$\lambda_{DU}$
Type 6500/6600	Type A Pneumatic Component	3, 2, 1	0	93.5%	$1.54 \times 10^{-5}$	$3.46 \times 10^{-8}$	$4.35 \times 10^{-9}$	$1.15 \times 10^{-8}$	$3.49 \times 10^{-9}$

*Note: PFD Average calculation is based on a proof test interval of 1-year, a Hardware Fault Tolerance (HFT) of 0, a Mean Time of Repair (MTR) of 8 hours, and Mean Time To Restoration (MTTR) of 8-Hours.*

Specific Condition of Use:

- 1) The analysis shows the design of the Type 6500/6600 Volume Booster can meet the hardware requirements of IEC61508 SIL 3 depending on the complete final element design.
- 2) 1oo1 Low Demand Configuration.

*This certificate is subject to conditions of use presented in FM Approval Report Project ID 3055291 dated 16<sup>th</sup> December 2015.*

  
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24 June 2024

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 Date

