

## Declaration of Performance

No: DoP-002-05-22

1. Unique identification code of the product-type:

**Line-type smoke detector: Firebeam Blue**

2. Intended use/es:

**Smoke detectors – Line detectors using an optical beam intended for use in fire detection and fire alarm systems installed in buildings**

3. Manufacturer:

**The Firebeam Company Limited  
Unit 8 Thames Industrial Estate  
High Street South, Dunstable  
Bedfordshire, LU6 3HL**

4. Authorised representative:

**EU Authorised Representative  
Name : Jean-Francois DUHAMEL  
Company : Finsecur SA  
Address : 62, Ernest Renan, 92000 Nanterre, France**

5. System/s of AVCP:

**System 1**

6. Harmonised standard:

**EN54-12:2015**

Notified body/ies::



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**Product certification body No:  
0786 VdS Schadenverhütung  
GmbH performed type testing  
and the initial inspection of  
the manufacturing plant and  
of the factory production  
control with continuous  
surveillance assessment and  
approval of the factory  
production control under  
system 1 and issued the  
Certificate of constancy of  
performance 0786-CPR-21735**



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**UL International (UK) Ltd  
Unit 1-3 Horizon  
Kingsland Business Park  
Basingstoke  
Hampshire  
RG24 8AH  
Approved body number 0843  
Certificate number 0843-CPR-1131**

7. European Assessment Document:

**Not applicable, see item 6**


## 8. Declared performance/s:

Harmonised technical specification Essential Characteristics	Performance	EN 54-12:2015 Clause
<b>Operational reliability</b>		
- Individual alarm indication	Red LED	4.2.1
- Connection of ancillary devices	Correct operation	4.2.2
- Manufacturer's adjustments	Special means required	4.2.3
- On-site adjustment of response value	Special means required	4.2.4
- Protection against ingress of foreign bodies	Protected (> 1.3mm)	4.2.5
- Monitoring of detachable detectors and connections	Fault signal released	4.2.6
- Requirements for software-controlled detectors	Documentation, design and storage correct	4.2.7
<b>Nominal activation conditions / sensitivity</b>		
- Reproducibility	$C_{min} \geq 0.4\text{dB}$ $C_{max}/C_{rep} \leq 1.33$ ; $C_{rep}/C_{min} \leq 1.5$	4.3.1
- Repeatability	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.3.2
- Tolerance to beam misalignment	Correct operation Maximum angle >0.4°	4.3.3
- Rapid changes in attenuation	Correct operation	4.3.4
- Response to slowly developing fires	Correct operation	4.3.5
- Optical path length dependence	$C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.3.6
- Stray light	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.3.7
<b>Tolerance to supply voltage</b>		
- Variation in supply parameters	$C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.4
<b>Performance under fire conditions</b>		
- Fire sensitivity	$m_a < 0.7 \text{ dB m}^{-1}$	4.5
<b>Durability of nominal activation conditions / sensitivity, temperature resistance</b>		
- Dry heat (operational)	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.1.1
- Cold (operational)	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.1.2
<b>Durability of nominal activation conditions / sensitivity, humidity resistance</b>		
- Damp heat, steady state (operational)	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.2.1
- Damp heat, steady state (endurance)	$C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.2.2
<b>Durability of nominal activation conditions / sensitivity, vibration resistance</b>		
- Vibration, (endurance)	$C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.3.1
- Impact (operational)	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.3.2
<b>Durability of nominal activation conditions / sensitivity, electrical stability</b>		
- Electromagnetic compatibility (EMC), Immunity tests (operational)	Correct operation $C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.4
<b>Durability of operational reliability, Corrosion resistance</b>		
- Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance)	$C_{min} \geq 0.4\text{dB}$ ; $C_{max}/C_{min} \leq 1.6$	4.6.5

# thefirebeamcompany

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011 and amended (for UK) by Construction Products (Amendment etc.) (EU Exit) Regulations 2019 Construction Products (Amendment etc.) (EU Exit) Regulations 2020, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Cliff Key

Managing Director

Dunstable UK – 1<sup>st</sup> January 2023

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Date:- 12.1.23