

## EU Declaration of Conformity

The following product is covered by this Declaration of Conformity:

Product Name	Product Description
Fireray One Lite	Reflective Optical Beam Smoke Detector

This product is manufactured by FFE Limited, 9 Hunting Gate, Hitchin, Hertfordshire, SG4 0TJ, United Kingdom.

Authorised representative: FFE B.V., J. Keplerweg 10S, 2408 AC, Alphen aan den Rijn, Netherlands

Note: FFE B.V. has, by issue of written mandate, been authorised by FFE Ltd to act as an Importer for this product, and to carry out the duties required of an Importer within the European Union.

This Declaration of Conformity is issued under the sole responsibility of the manufacturer; we hereby declare that the product identified above is in conformity with the following:

- 2014/30/EU Electromagnetic Compatibility (EMC)
- 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2)
- Commission Delegated Directive 2015/863/EU Amending Annex II of Directive 2011/65/EU regards the list of restricted substances (RoHS 3)

Relevant harmonised standards to which conformity is declared:

- EN 50130-4:2011+A1:2014 Alarm systems. Electromagnetic compatibility. Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems
- EN 61000-6-3:2021 Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial, and light-industrial environments

This declaration is made for and on behalf of FFE Limited by the Technical Director, Mahesh Desilva.

Signature: *Mahesh de Silva*

Date: 10/01/2025

## **DECLARATION OF PERFORMANCE**

According to Construction Products Regulation EU N° 305/2011

### **No. DOP-F5022**

1. Unique identification code of the product-type:  
**Fireray One Lite**
2. Intended use/es:  
**Fire detection and fire alarm systems**
3. Manufacturer:  
**FFE Ltd, 9 Hunting Gate, Hitchin, Hertfordshire, SG4 0TJ, United Kingdom**
4. Authorised representative:  
**FFE B.V., J. Keplerweg 10S, 2408 AC, Alphen aan den Rijn, Netherlands**

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5. System/s of AVCP:  
**System 1**
6. Harmonised standard:  
**EN 54-12: 2015**

Notified body/ies:  
**BRE Global Assurance (Ireland) Limited (Notified Body No. 2831)**

Certificate No:  
**2831-CPR-F5022**

7. Declared performance/s:

Essential Characteristics	Performance	Harmonised Technical Specification
<b>Operational reliability</b> Individual alarm indication Connection of ancillary devices Manufacturers' adjustments On-site adjustment of response value Protection against the ingress of foreign bodies Monitoring of detachable detectors and connections	Integral red visible indicator Not applicable Complies Complies Sphere of diameter 1.3mm cannot enter optics Correct operation	EN 54-12

Essential Characteristics	Performance	Harmonised Technical Specification
Software controlled line detector using an optical beam	Documentation available, modular structure, invalid data not permitted, program deadlock avoided. Site specific data in non-volatile memory with two-week retention.	
<b>Nominal activation conditions/Sensitivity</b>		
Reproducibility	$C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{rep} \leq 1.33$ , $C_{rep} / C_{min} \leq 1.5$	
Repeatability	No fault or alarm signals for 3 days, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Tolerance to beam misalignment	Correct operation; maximum angle of misalignment is $0.5^\circ$ .	
Rapid changes in attenuation	Correct operation	
Response to slowly developing fires	Correct operation	
Optical path length dependence	$C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Stray light	No fault or alarm signals during conditioning, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
<b>Tolerance to supply voltage</b>		
Variation in supply parameters	$C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
<b>Performance parameters under fire conditions</b>		
Fire sensitivity	Alarm signal in each test fire, with $m_a < 0.7 \text{ dB m}^{-1}$	
<b>Durability of nominal activation conditions / sensitivity</b>		
Temperature resistance		
Dry heat (operational)	No fault or alarm signals during conditioning, alarm signal within 30s with 6dB filter in front of receiver, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Cold (operational)	No fault or alarm signals during conditioning, alarm signal within 30s with 6dB filter in front of receiver, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Humidity resistance		
Damp heat, steady state (operational)	No fault or alarm signals during conditioning, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Damp heat, steady state (endurance)	$C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Vibration resistance		
Vibration (endurance)	$C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	
Impact (operational)	No fault or alarm signals during conditioning except when the beam is obstructed by the impact apparatus, $C_{min} \geq 0.4\text{dB}$ , $C_{max} / C_{min} \leq 1.6$	

**FFE Limited**

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Registered in England No:

01192710

VAT Registration No:

GB 700 1840 89



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Essential Characteristics	Performance	Harmonised Technical Specification
Electrical stability EMC immunity (operational)	No false operation during conditioning, $C_{\min} \geq 0.4\text{dB}$ , $C_{\max} / C_{\min} \leq 1.6$	
Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance)	$C_{\min} \geq 0.4\text{dB}$ , $C_{\max} / C_{\min} \leq 1.6$	

The performance of the product/s 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, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

*Mahesh de Silva*

Mahesh Desilva  
Technical Director  
Hitchin, 10/01/2025