

DECLARATION OF PERFORMANCE

According to Construction Products Regulation 2020, UK Statutory Instruments
2020 No.1359 of Ministry of Housing, Communities and Local Government

No. UKCA-501



1. Unique identification code of the product-type:
Fireray 5000
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

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.

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

Notified body/ies:
BRE Global Limited (Notified Body No. 0832)

Certificate No:
0832-UKCA-CPR-F0991

7. Declared performance/s:

Essential Characteristics	Performance	Harmonised Technical Specification
Operational reliability 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 Software controlled line detector using an optical beam	Integral red visible indicator Not applicable Complies Complies Sphere of diameter 1.3mm cannot enter optics Correct operation Documentation available, modular structure, invalid data not permitted, program deadlock avoided. Site specific data in non-volatile memory with two-week retention.	EN 54-12

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Essential Characteristics	Performance	Harmonised Technical Specification
Nominal activation conditions/Sensitivity		
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 0.41° .	
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, $C_{min} \geq 0.4\text{dB}$, $C_{max} / C_{min} \leq 1.6$	
Tolerance to supply voltage		
Variation in supply parameters	$C_{min} \geq 0.4\text{dB}$, $C_{max} / C_{min} \leq 1.6$	
Performance parameters under fire conditions		
Fire sensitivity	Alarm signal in each test fire, with $m_a < 0.7 \text{ dB m}^{-1}$	
Durability of nominal activation conditions / sensitivity		
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, $C_{min} \geq 0.4\text{dB}$, $C_{max} / C_{min} \leq 1.6$	

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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 ₂) 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 Construction Products Regulation 2020, UK Statutory Instruments 2020 No.1359 of Ministry of Housing, Communities and Local Government, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

A handwritten signature in black ink, appearing to read 'Steve Revill'.

Steve Revill
Technical Director
Hitchin, 25/01/2024