



## EC & UKCA DECLARATION OF PERFORMANCE

No: F0414



This declaration was compiled following the provisions of EU Construction Products Regulation CPR No.305/2011 & UKCA SI 465/2019

**EV-PH** Analogue Addressable Optical Smoke and Heat Detector  
**Part number:** F20-82400  
**Compatible Bases:** UB-4, UB-6-EV, STB-4SE, STB-4SE-EV, IP55-Base + Mount  
EV-B-SCI, EV-SPB-SCI, EV-24VRL, SCI-5, EV-SDR Base,  
EV-AV2 Base  
**Manufacturer:** Nittan Europe Ltd, Old Woking, Surrey GU22 9LQ England.

We, Nittan Europe Limited of Hipley Street, Old Woking, Surrey GU22 9LQ England, declare that the above listed product complies with the following:

Standard EN54-5:2017 + A1:2018, Heat detectors - Point detectors.

Standard EN54-7:2018, Smoke detectors - Point detectors.

Standard CEA 4021:2003, Multisensors

EMC Directive 2014/30/EU & Electromagnetic Compatibility Regulations 2016 UK

RoHS Directive (EU) 2015/863 & Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 UK

Low Voltage Directive (LVD) 2014/35/EU & Electrical Equipment (Safety) Regulations 2016 UK

The intended use for the construction product is Fire Detection and Alarm Systems.

BRE Global Assurance Ireland Ltd, DCU Alpha, Old Finglas Road, Glasnevin, Dublin D11 KXN4, Ireland. Notified body number 2831, have conducted Type testing and Factory Production Control Inspection in accordance with System 1, as set out in the CPR, and issued an EC Certificate of Constancy of Performance 2831-CPR-F0414.

BRE Global Assurance UK LTD, Bucknalls Lane, Watford, Hertfordshire, WD25 9XX, Notified body number 0832, have issued the UKCA certification 0832-UKCA CPR-F0028 in accordance with UKCA SI 465/2019.



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Declared Performance:

Technical Characteristics	Performance	Harmonised Specification
Operating Voltage	20 Vdc to 35 Vdc	EN54-5: 2017 + A1:2018 & EN54-7: 2018
Quiescent Current	200 $\mu$ A	
Alarm Current (Including Indicator)	5 mA	
Remote LED Indicator Current	2 mA	
Operating Temperature	-10°C to +55°C	
Relative Humidity	$\leq$ RH 95%	
Dimensions	$\varnothing$ 104mm x 42.5mm	
Mass	130 g	
<b>Operational Reliability</b>		<b>EN54-5: 2017 + A1:2018</b>
Position of heat sensitive element	PASS	EN54-5: 2017 Clause 4.2.1
Individual alarm indication	PASS	EN54-5: 2017 Clause 4.2.2
Connection of ancillary devices	PASS	EN54-5: 2017 Clause 4.2.3
Monitoring of detachable point heat detectors	PASS	EN54-5: 2017 Clause 4.2.4
Manufacturing adjustments	PASS	EN54-5: 2017 Clause 4.2.5
On site adjustment of response behaviour	PASS	EN54-5: 2017 Clause 4.2.6
Software controlled detector (when provided)	PASS	EN54-5: 2017 Clause 4.2.7
<b>Nominal activation conditions/Sensitivity</b>		
Directional dependence	PASS	EN54-5: 2017 Clause 4.3.1
Static response temperature	PASS	EN54-5: 2017 Clause 4.3.2
Response times from typical application temperature	PASS	EN54-5: 2017 Clause 4.3.3
Response times from 25 °C	PASS	EN54-5: 2017 Clause 4.3.4
Response times from high ambient temperature	PASS	EN54-5: 2017 Clause 4.3.5
Reproducibility	PASS	EN54-5: 2017 Clause 4.3.6
<b>Response delay (response time):</b>		
Additional test for suffix R point heat detectors	PASS (A1R)	EN54-5: 2017 Clause 4.4.2
<b>Tolerance to supply voltage:</b>		
Variation in supply parameters	PASS	EN54-5: 2017 Clause 4.5.1
<b>Durability – Temperature resistance:</b>		
Cold (operational)	PASS	EN54-5: 2017 Clause 4.6.1.1
Dry heat (endurance)	PASS	EN54-5: 2017 Clause 4.6.1.2
<b>Durability – Humidity resistance:</b>		
Damp heat, cyclic (operational)	PASS	EN54-5: 2017 Clause 4.6.2.1
Damp heat, steady-state (endurance)	PASS	EN54-5: 2017 Clause 4.6.2.2
<b>Durability – Corrosion resistance:</b>		
Sulfur dioxide (SO <sub>2</sub> ) corrosion (endurance)	PASS	EN54-5: 2017 Clause 4.6.3
<b>Durability – Vibration resistance:</b>		
Shock (operational)	PASS	EN54-5: 2017 Clause 4.6.4.1
Impact (operational)	PASS	EN54-5: 2017 Clause 4.6.4.2
Vibration, sinusoidal (operational)	PASS	EN54-5: 2017 Clause 4.6.4.3
Vibration, sinusoidal (endurance)	PASS	EN54-5: 2017 Clause 4.6.4.4
<b>Durability – Electrical stability:</b>		
EMC, immunity (operational)	PASS	EN54-5: 2017 Clause 4.6.5



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Operational Reliability		EN54-7: 2018
Individual alarm indication	PASS	EN54-7: 2018 Clause 4.2.1
Connection of ancillary devices	PASS	EN54-7: 2018 Clause 4.2.2
Monitoring of detachable detectors	PASS	EN54-7: 2018 Clause 4.2.3
Manufacturer's adjustments	PASS	EN54-7: 2018 Clause 4.2.4
On site adjustment of response behaviour	PASS	EN54-7: 2018 Clause 4.2.5
Protection against the ingress of foreign bodies	PASS	EN54-7: 2018 Clause 4.2.6
Response to slowly developing fires	PASS	EN54-7: 2018 Clause 4.2.7
Software controlled detector (when provided)	PASS	EN54-7: 2018 Clause 4.2.8
Nominal activation conditions/Sensitivity		
Repeatability	PASS	EN54-7: 2018 Clause 4.3.1
Directional dependence	PASS	EN54-7: 2018 Clause 4.3.2
Reproducibility (Low Sensitivity)	0.18 to 0.29 dB/m	EN54-7: 2018 Clause 4.3.3
Reproducibility (High Sensitivity)	0.15 to 0.22 dB/m	
Response delay (response time)		
Air movement	PASS	EN54-7: 2018 Clause 4.4.1
Dazzling	PASS	EN54-7: 2018 Clause 4.4.2
Tolerance to supply voltage:		
Variation in supply parameters	PASS	EN54-7: 2018 Clause 4.5
Performance parameters under fire conditions:		
Fire sensitivity TF-2, TF-3, TF-4 & TF5	PASS	EN54-7: 2018 Clause 4.6
TF-8 Decalin Fire Test	PASS	CEA 4021:1999
Durability – Temperature resistance:		
Cold (operational)	PASS	EN54-7: 2018 Clause 4.7.1.1
Dry heat (operational)	PASS	EN54-7: 2018 Clause 4.7.1.2
Durability – Humidity resistance:		
Damp heat, steady-state (operational)	PASS	EN54-7: 2018 Clause 4.7.2.1
Damp heat, steady-state (endurance)	PASS	EN54-7: 2018 Clause 4.7.2.2
Durability – Corrosion resistance:		
Sulfur dioxide (SO2) corrosion (endurance)	PASS	EN54-7: 2018 Clause 4.7.3
Durability – Vibration resistance:		
Shock (operational)	PASS	EN54-7: 2018 Clause 4.7.4.1
Impact (operational)	PASS	EN54-7: 2018 Clause 4.7.4.2
Vibration, sinusoidal (operational)	PASS	EN54-7: 2018 Clause 4.7.4.3
Vibration, sinusoidal (endurance)	PASS	EN54-7: 2018 Clause 4.7.4.4
Durability – Electrical stability:		
EMC, immunity (operational)	PASS	EN54-7: 2018 Clause 4.7.5

Barry Sargent  
Technical Product Manager/  
Quality Manager  
31<sup>st</sup> March 2022

