



**Date of Issue – 1<sup>st</sup> July 2013**  
**Construction Products Regulation**  
**EU 305/2011**

**APOLLO FIRE DETECTORS LTD**  
**DECLARATION OF PERFORMANCE**  
**No. CD0002/SMOKE/V2**

This document is a declaration of performance that the products identified below conform to the essential requirements that have been specified in the European Regulation 305/2011 covering construction products. This Regulation has been enacted into the UK law by the Statutory Instrument Construction Product Regulations 2013.

The products listed below are manufactured at the premises of Apollo Fire Detectors Ltd.  
36 Brookside Road, Havant, Hampshire, PO9 1JR, England.

1. Unique identification code of the product-type:

**Optical Smoke Detectors**

**55000-208, 55000-215, 55000-216, 55000-217, 55000-218, 55000-219, 55000-220, 55000-308, 55000-315, 55000-316, 55000-317, 55000-390, 55000-391, 55000-500, 55000-520, 55000-540, 55000-560, 55000-600, 55000-620, 55000-640, 55000-660, 55000-665, 55000-885, 58000-500, 58000-600, 58000-700, XPA-OP-12034-APO, XPA-OH-13032-APO, Orbis Optical conventional smoke detectors starting from the following prefixes letters: ORB-OP, OAX-OP, OPX-OP, OEX-OP, OIX-OP, OMX-OP, OSX-OP, OLX-OP,**

**Orbis Multisensor conventional smoke detectors starting from the following prefixes letters: ORB-OH, OAX-OH, OPX-OH, OEX-OH, OIX-OH, OMX-OH, OSX-OH, OLX-OH, Orbis IS Optical conventional smoke detectors starting from the following prefixes letters: ORB-OP,**

**Orbis IS Multisensor conventional smoke detectors starting from the following prefixes letters: ORB-OH**

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4) of the CPR:

**Each individual product is identified with a label or laser marking containing a production date code with build standard number**

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

**Fire detection and fire alarm systems**

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

**Apollo Fire Detectors Ltd,  
36 Brookside Road, Havant, Hampshire, PO9 1JR**

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):

**Apollo Fire Detectors Ltd,  
36 Brookside Road, Havant, Hampshire, PO9 1JR**

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:

**System 1**

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7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:

**BRE Global Limited No.0832/Intertek No.0359/UL No.0843/ AFNOR No.0333 performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control, and issued the certificate of constancy of conformity of the factory production control**

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

**Not applicable**

9. Declared performance

| Essential characteristics   | Declared Performance   | Harmonised technical specification |
|---|--|------------------------------------|
| <p><b>Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire conditions</b></p> | <p>1) Smoke detectors meet the requirement of 4.8 clause Response to slowly developing fires<br/>           2) Smoke detectors are compliant with clause 5.2 Repeatability test. Mentioned test confirmed that smoke detectors have stable behaviour with respect to their sensitivity even after a number of alarm conditions<br/>           3) Smoke detectors are compliant with clause 5.3 Directional dependence test. Mentioned test confirmed that the sensitivity of smoke detectors is not unduly dependent on the direction of airflow around them<br/>           4) Smoke detectors are compliant with clause 5.4 Reproducibility test. Mentioned test confirmed that the sensitivity of smoke detectors does not vary unduly from specimen to specimen and has established response threshold value data for comparison with the response threshold values measured after the environmental tests<br/>           5) Smoke detectors are compliant with clause 5.6 Air movement test. Mentioned test confirmed that the sensitivity of smoke detectors is not unduly affected by the rate of the air flow, and that it is not unduly prone to false alarms in draughts or in short gusts<br/>           6) Smoke detectors are compliant with clause 5.7 Dazzling test. Mentioned test confirmed that the sensitivity of smoke detectors is not unduly influenced by the close proximity of artificial light sources. This test was only applied to detectors using scattered light or transmitted light<br/>           7) Smoke detectors are compliant with clause 5.18 Fire sensitivity test. Mentioned test confirmed that smoke detectors have adequate sensitivity to a broad spectrum of smoke types as required for general application in fire detection systems for buildings</p> | <p>EN54-7:2001</p>                 |
| <p><b>Operational reliability</b></p>   | <p>1) Smoke detectors are compliant with clause 4.2 Individual alarm indication requirements stating that each detector shall be provided with an integral red visual indicator, by which the individual detector, which released an alarm, can be identified, until the alarm condition is reset.<br/>           2) Connection of a remote indicator cannot prevent normal operation of the detectors<br/>           3) Detector head removal gives fault signal as per clause 4.4 requirement<br/>           4) It is not possible to change smoke detector manufacturer's settings except by special means as per clause 4.5<br/>           5) Adjustments can only be made via the CIE, all modes of operation are approved and certified<br/>           6) Smoke detectors are designed to fully comply with clause 4.7 Protection against the ingress of foreign bodies<br/>           7) Each smoke detector is permanently marked with obligatory information as per clause 4.9<br/>           8) Each smoke detector is supplied with reference to the appropriate data sheet(s) as per clause 4.10<br/>           9) For smoke detectors which rely on software control the requirements of clause 4.11 are met</p>  |                                    |

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|---|--|-------------|
| <b>Tolerance to supply voltage</b>  | 1) Smoke detectors are compliant with clause 5.5 Variation in supply parameters test. Mentioned test confirmed that, within the specified range(s) of the supply parameters, the sensitivity of the detectors is not unduly dependent on these parameters  | EN54-7:2001 |
| <b>Durability of operational reliability and response delay; temperature resistance</b> | 1) Smoke detectors are compliant with clause 5.8 Dry heat (operational) test. Mentioned test demonstrated the ability of the detectors to function correctly at high ambient temperatures appropriate to the anticipated service environment<br>2) Smoke detectors are compliant with clause 5.9 Cold (operational) test. Mentioned test demonstrated the ability of the detectors to function correctly at low ambient temperatures appropriate to the anticipated service environment  |             |
| <b>Durability of operational reliability; vibration resistance</b>                      | 1) Smoke detectors are compliant with clause 5.13 Shock (operational) test. Mentioned test demonstrated the immunity of the detectors to mechanical shocks in the anticipated service environment<br>2) Smoke detectors are compliant with clause 5.14 Impact (operational) test. Mentioned test demonstrated the immunity of the detectors to mechanical impacts upon their surface<br>3) Smoke detectors are compliant with clause 5.15 Vibration, sinusoidal (operational) test. Mentioned test demonstrated the immunity of the detectors to vibration at levels considered appropriate to the normal service environment<br>4) Smoke detectors are compliant with clause 5.16 Vibration, sinusoidal (endurance) test. Mentioned test demonstrated the ability of the detectors to withstand the long-term effects of vibration at levels appropriate to the service environment |             |
| <b>Durability of operational reliability; humidity resistance</b>                       | 1) Smoke detectors are compliant with clause 5.10 Damp heat, steady state (operational) test. Mentioned test demonstrated the ability of the detectors to function correctly at high relative humidity (without condensation), which may occur for short periods in the anticipated service environment<br>2) Smoke detectors are compliant with clause 5.11 Damp heat, steady state (endurance) test. Mentioned test demonstrated the ability of the detectors to withstand the long-term effects of humidity in the service environment (e.g. changes in the electrical properties of materials, chemical reactions involving moisture, galvanic corrosion etc.)   |             |
| <b>Durability of operational reliability; corrosion resistance</b>                      | 1) Smoke detectors are compliant with clause 5.12 SO <sub>2</sub> corrosion (endurance) test. Mentioned test demonstrated the ability of the detectors to withstand the corrosive effects of sulphur dioxide as an atmospheric pollutant   |             |
| <b>Durability of operational reliability; electrical stability</b>                      | 1) Smoke detectors are compliant with clause 5.17 Electromagnetic compatibility (EMC), immunity tests (operational). Smoke detectors passed the following tests: electrostatic discharge, radiated electromagnetic fields, conducted disturbances induced by electromagnetic fields, fast transient bursts, slow high energy voltage surges  |             |

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Mr Clifton Gare-Mogg, Conformance Manager

.....  
(name and function)

Havant, 01/07/2013

.....  
(place and date of issue)

.....  
(signature)

