



By Appointment to  
Her Majesty The Queen  
Manufacturers of Fire Detection & Alarm Products  
Apollo Fire Detectors Limited  
Hampshire



**Construction Products Regulation:  
EU (No) 305/2011**

This Declaration has been drawn-up in accordance with Commission Delegated Regulation (EU) No. 574/2014 which amends Annex III of Regulation (EU) No 305/2011.

**DECLARATION OF PERFORMANCE**

**No. E0037**

**1. Unique identification code of the product-type:**

**Model number and Description:**

ORB-OH-53027-APO Orbis Intrinsically Safe Multisensor Detector with SensAlert/FasTest,DirtAlert  
ORB-OH-53028-APO Orbis Intrinsically Safe Multisensor Detector with Flashing LED/ SensAlert/FasTest,DirtAlert

**Approved Accessories:**

Bases: ORB-MB-50018, ORB-BA-50008, 45681-207

**Harmonised Product Type(s):**

Smoke Detectors – Point Detectors

**2. Intended use/es:**

Fire detection and fire alarm systems installed in and around buildings.

**3. Manufacturer:**

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

**4. Authorised representative:**

Apollo Gesellschaft für Meldetechnologie mbH  
Am Anger 31  
33332 Gütersloh  
Deutschland

**5. System of AVCP**

System 1

**6a. Harmonised Standard(s)**

EN 54-7:2018

**6b. Notified Body:**

DBI Certification A/S (Notified Body 2531)

A HALMA COMPANY



**Apollo Fire Detectors Limited**

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Apollo Fire Detectors Ltd. Registered in England No. 1483208  
Registered Office: 36 Brookside Road, Havant, Hampshire, PO9 1JR VAT Registration No. GB 339 0553 54

## 7. Declared performance

Essential characteristics	Clauses in EN 54-7:2018	Regulatory classes	Performance
<b>Operational reliability:</b>			
Individual alarm indication	4.2.1	None	The visual indicator(s) are visible from a distance of 6 m in an ambient light intensity up to 500 lx.
Connection of ancillary devices	4.2.2		Open or short circuit failures of connection to ancillary device did not prevent the correct operation of the detector
Monitoring of detachable detectors	4.2.3		A fault condition is signaled when the detector is removed from the mounting base.
Manufacturer's adjustments	4.2.4		It is not possible to adjust the detector settings without the use of a special tool to access into the detector or use of a code to enabling entry into the panel programming software.
On site adjustment of response behavior	4.2.5		The mode(s) of operation are adjustable from the Control and Indicating Equipment by use of a loop communication protocol. Access to enable mode changes is by software control of the protocol communication.
Protection against the ingress of foreign bodies	4.2.6		The chamber is designed so that a sphere of diameter (1,3±0,05) mm cannot pass into the sensor chamber.
Response to slowly developing fires	4.2.7		The provision of "drift compensation" (e.g. to compensate for sensor drift due to the build-up of dirt in the detector), does not lead to a significant reduction in the detectors sensitivity to slowly developing fires.
Software controlled detectors	4.2.8		The software documentation and the software design complies with the requirements of EN 54-7:2018.
<b>Nominal activation conditions/sensitivity:</b>			
Repeatability	4.3.1	Threshold	Ratio of response values $m_{max}:m_{min} \leq 1.6$ Lower response value, $m_{max}:m_{min} \geq 0.05 \text{ dB m}^{-1}$
Directional dependence	4.3.2		Ratio of response values $m_{max}:m_{min} \leq 1.6$ Lower response value, $m_{max}:m_{min} \geq 0.05 \text{ dB m}^{-1}$
Reproducibility	4.3.3		Ratio of response values $m_{max}:\bar{m} \leq 1.33$ Ratio of the response values $\bar{m}:m_{min} \leq 1.5$ Lower response value, $m_{min} \geq 0.05 \text{ dB m}^{-1}$
<b>Response delay (response time):</b>			

Air movement	4.4.1	Ratio is > 0.0625 and < 1.60 and the point smoke detector did not emit a fault nor alarm signal during the test with aerosol-free air
Dazzling	4.4.2	The specimen did not emit neither an alarm nor a fault signal and Ratio of response thresholds $m_{max}:m_{min} \leq 1.6$
<b>Tolerance to supply voltage:</b>		
Variation in supply parameters	4.5	Ratio of response values $m_{max}:m_{min} < 1.6$ Lower response value, $m_{min} \geq 0.05 \text{ dB m}^{-1}$
<b>Performance parameters under fire conditions:</b>		
Fire sensitivity	4.6	Evaluated as meeting the requirements of TF2 to TF5
<b>Durability of nominal activation conditions/Sensitivity:</b>		
temperature resistance		
Cold (operational)	4.7.1.1	The specimen did not emit neither an alarm nor a fault signal and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Dry heat (operational)	4.7.1.2	The specimen did not emit neither an alarm nor a fault signal and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Humidity resistance		
Damp heat, steady-state (operational)	4.7.2.1	The specimen did not emit neither an alarm nor a fault signal and ratio of response values $m_{max}:m_{min} \leq 1.6$
Damp heat, steady-state (endurance)	4.7.2.2	No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Corrosion resistance		
Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance)	4.7.3	No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration resistance		
Shock (operational)	4.7.4.1	No fault signal given from the specimen during the conditioning period or the additional 2 min. and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Impact (operational)	4.7.4.2	No fault signal given from the specimen during the conditioning period or the additional 2 min. and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration, sinusoidal (operational)	4.7.4.3	No fault signal given from the specimen during the conditioning and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration, sinusoidal (endurance)	4.7.4.4	No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$

Electrical stability EMC immunity (operational)	4.7.5		
a) Electrostatic discharge (operational)			No alarm or fault signal given during the conditioning and Ratio of response values $m_{max}:m_{min} \leq 1.6$
b) Radiated electromagnetic fields (operational)			
c) Conducted disturbances(operational)			
d) Fast transient bursts (operational)			
e) Slow high energy voltage surge (operational)			

## 8. Online Display Location

This document can be viewed online at [www.apollo-fire.co.uk](http://www.apollo-fire.co.uk)

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, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Apollo Fire Detectors Limited by:



Mr. David Robbins  
Technical Director  
Havant – 27.06.2023

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