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. D0002

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

   Model number and Description:

   RW1000-600APO – REACH Optical Smoke Detector using Radio Links – With Base
   RW1000-601APO – REACH Optical Smoke Detector using Radio Links – Without Base

   Approved Accessories:

   RW5000-200 – White Base

   Harmonised Product Type(s):

   Smoke detectors
   Components using radio links

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(s) of AVCP**

   System 1

6 **Harmonised Standard(s)**

   EN 54-7:2018
   EN 54-25:2008 + AC:2012

   Notified Body/ies:

   IMQ ISTITUTO ITALIANO DEL MARCHIO DI QUALITÀ S.P.A. (Notified Body No. 0051)

Apollo Fire Detectors Limited
36 Brookside Road, Havant, Hampshire, PO9 1JR, UK
t +44 (0)23 9249 2912 f +44 (0)23 9249 2754 e sales@apollo-fire.co.uk
www.apollo-fire.co.uk

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
Operational reliability:		None	
Individual alarm indication	4.2.1		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.
Nominal activation conditions/sensitivity:		Threshold	
Repeatability	4.3.1		Ratio of response values $m_{max}:m_{min} \leq 1.6$ Lower response value, $m_{max}:m_{min} \geq 0.05$ dB m^{-1}
Directional dependence	4.3.2		Ratio of response values $m_{max}:m_{min} \leq 1.6$

			Lower response value, $m_{max}:m_{min} \geq 0.05$ 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, $m_{min} \geq 0.05$ dB m^{-1}
Response delay (response time):			
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 $m_{max}:m_{min} \leq 1.6$
Tolerance to supply voltage:			
Variation in supply parameters	4.5		Ratio of response values $m_{max}:m_{min} < 1.6$ Lower response value, $m_{min} \geq 0.05$ dB m^{-1}
Performance parameters under fire conditions:			
Fire sensitivity	4.6		Evaluated as meeting the requirements of TF2 toTF5
Durability of nominal activation conditions/Sensitivity:			
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_2) 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) a) Electrostatic discharge (operational) b) Radiated electromagnetic fields (operational) c) Conducted disturbances(operational) d) Fast transient bursts (operational) e) Slow high energy voltage surge (operational)	4.7.5		No alarm or fault signal given during the conditioning and Ratio of response values $m_{max}:m_{min} \leq 1.6$

Essential Characteristics	Standard EN54-25:2008 + AC:2012	Performance
Performance parameters under fire conditions	4.1, 4.2.2, 5.2, 8.3.7	Pass
Response delay (response time to fire)	8.2.3, 8.2.6	Pass
Operational reliability	4.21, 4.2.3 to 4.2.7, 5.3, 5.4, 6.7, 8.2.2, 8.2.4, 8.2.5, 8.2.7, 8.2.8[b], 8.2.9, 8.3.1, 8.3.2, 8.3.3, 8.3.4, 8.3.5,8.3.6	Pass
Durability of operational reliability: Temperature resistance	8.3.9[c], 8.3.10[c], 8.3.11	Pass
Durability of operational reliability: Vibration resistance	8.3.16[c], 8.3.17 to 8.3.19	Pass
Durability of operational reliability: Humidity resistance	8.3.12[d], 8.3.13[e], 8.3.14	Pass
Durability of operational reliability: Corrosion resistance	8.3.15[c]	Pass
Durability of operational reliability: Electrical stability	8.3.20	Pass

[a] The products covered by this standard are assumed to enter the alarm condition, in an event of fire, before the fire becomes so large as to affect their functioning. There is therefore no requirement to function when exposed to direct attack from fire.
[b] Only applicable to components required to indicate loss of communication or to transmit this information to the CIE.
[c] Not applicable for CIE
[d] Not applicable for CIE and smoke detectors
[e] Only applicable for CIE and smoke detectors

8. **Online Display Location**

This document can be viewed online at 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 – 27.02.2024

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