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. 2831-CPR-F1120

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

   Model number and Description:

   SA7100-100APO Addressable Beam Detector with Automatic Alignment

   Approved Accessories:

   0020-017 – Mounting Bracket,
   29650-070 – IR Beam Detector
   5000-067 – System Controller

   Harmonised Product Type(s):

   Smoke Detectors – Line detectors using an optical beam
   Short Circuit Isolators

2. **Intended use/es:**

   Fire detection and fire alarm systems

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

   Note that Apollo UK has, by issue of written mandate, authorised the above entity to act as Importer for these products and carry out the duties required of an Importer within the EU.

5. **System of AVCP**

   System 1

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

   EN 54-12:2015
   EN 54-17:2005

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Registered Office: 36 Brookside Road, Havant, Hampshire, PO9 1JR VAT Registration No. GB 339 0553 54

6b. **Notified Body:**

BRE Global Ireland (Notified Body 2831)

7. **Declared performance**

Essential characteristic	Performance	Harmonized technical specification
Operational reliability: Individual alarm indication Connection of ancillary devices Manufacturer's 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 Does not prevent correct operation Special means required Special means required, settings clearly marked Sphere of diameter 1,3mm cannot enter optics Fault signal given 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
Nominal activation conditions/Sensitivity: Reproducibility Repeatability Tolerance to beam misalignment Rapid changes in attenuation Response to slowly developing fires Optical path length dependence Stray light	Cmin ≥ 0,4dB, Cmax / Crep ≤ 1,33, Crep / Cmax ≤ 1,5 No fault or alarm signals for 3 days, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 Maximum angle of misalignment is X degrees, no fault or alarm signal within X degrees, alarm at X degrees within 30 s with 6dB filter Alarm signal within 30s with 6dB filter in front of receiver, fault signal within 60s with 12dB filter in front of receiver. Alarm signal not cancelled by fault. Drift compensation limited so that for fires developing faster than C/4 per hour the response value does not increase by more than 1,6 x C, where C is the initial response value. Compensation range limited. Alarm signal not cancelled by fault. Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 No fault or alarm signals during conditioning, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6	
Tolerance to supply voltage: Variation in supply parameters	Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6	
Performance parameters under fire conditions: Fire sensitivity	alarm signal in each test fire, with *ma* < 0,7 dB m−1	
Durability of nominal activation conditions/sensitivity: Temperature resistance Dry heat (operational) Cold (operational) Humidity resistance Damp heat, steady-state (operational) Damp heat, steady-state (endurance) Vibration resistance Vibration, (endurance) Impact (operational)	No fault or alarm signals during conditioning, Alarm signal within 30s with 6dB filter in front of receiver, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 No fault or alarm signals during conditioning, Alarm signal within 30s with 6dB filter in front of receiver, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 No fault or alarm signals during conditioning, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 No fault or alarm signals during conditioning apart from when the beam is obstructed by the apparatus, Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6 No false operation during conditioning, Cmin ≥ 0,4dB,	

Electrical Stability EMC immunity (operational) Sulfur dioxide (SO2) corrosion (endurance)	Cmax / Cmin ≤ 1,6 Cmin ≥ 0,4dB, Cmax / Cmin ≤ 1,6	
Notes; **Sensitivities:** Sensitivity setting from 25% to 35% only Delay to fire setting between 2 and 20 seconds only		

Essential Characteristics	Standard EN 54-17:2005	Performance
Performance under fire conditions	5.2(1)	Pass
Operational reliability	4	Pass
Durability of operational reliability: temperature resistance	5.4, 5.5	Pass
Durability of operational reliability: vibration resistance	5.9 to 5.12	Pass
Durability of operational reliability: humidity resistance	5.6, 5.7	Pass
Durability of operational reliability: corrosion resistance	5.8	Pass
Durability of operational reliability: electrical stability	5.3,5.13	Pass
1) This is assuming that the effect of the fire is to cause a short circuit in the transmission path that is protected by these devices		

The performance of the product identified above is in the 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

8. **Online Display Location**

This document can be viewed online at www.apollo-fire.co.uk

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

Mr. Karl Westhead
Technical Director

Place and Date of Issue: Havant - 20 May 2021

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