

**CERTIFICATE OF CONSTANCY OF PERFORMANCE**

Issued by DBI Certification, notified body No. 2531.

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

**SA7100-100APO Adressable Beam Detector with Automatic Alignment**

The product fulfils the essential characteristic:

**See Annex 1**

Intended use: Applications related to automatic fire alarm systems

Placed on the market under the name or trade mark of:

**Apollo Fire Detectors Ltd.**  
**36 Brookside Road**  
**Havant, Hampshire, P09 1JR**  
**United Kingdom**

and produced in the manufacturing plant:

**FFE Ltd.**  
**9 Hunting Gate**  
**Hitchin, Hertfordshire, SG4 0TJ**  
**United Kingdom**

This attests that all provisions concerning the performance described in Annex ZA of the standard(s)

**EN 54-12:2015** : **Fire detection and fire alarm systems - Part 12: Smoke detectors - Line detectors using an optical beam**  
**EN 54-17:2005** : **Fire detection and fire alarm systems - Part 17: Short-circuit isolators**

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

**CONSTANCY OF PERFORMANCE OF THE CONSTRUCTION PRODUCT.**

This certificate was first issued on 2022-05-06 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The attached annexes form part of this certificate.

Date of issue: **2022-10-26**.

(This certificate supersedes the previous version of this certificate issued 2022-05-06)



Merete Poulsen  
Responsible for evaluation



Steen Nilsson  
Responsible for certification decision

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**DBI Certification A/S**

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Annex 1

**EXTENT**

**Type:**

SA7100-100APO Adressable Beam Detector with Automatic Alignment

**Ancillaries:**

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

**Second detector head:**

29650-069 Apollo Auto-Aligning Beam Detector and System Controller  
*The model 29650-069 is only approved to EN 54-12:2015.*

**Notes:**

1. Approved sensitivity settings from 25% to 35% only
2. 29650-069 approved for use with 1-2 heads
3. 50m approved range 8-50m – using 1 x Prismatic Retroreflector
4. 100m approved range 50-100m – using 4 x Prismatic Retroreflector
5. Delay to fire setting between 2 and 20 seconds only

**Performance**

Essential characteristics	Clauses in EN 54-12:2015	Regulatory classes	Performance	
<b>Operational reliability:</b>				
Individual alarm indication	4.2.1	None	Pass	
Connection of ancillary devices	4.2.2		Pass	
Manufacturer's adjustments	4.2.3		Pass	
Onsite adjustments of response value	4.2.4		Pass	
Protection of ingress of foreign bodies	4.2.5		Pass	
Monitoring of detachable detectors and connections	4.2.6		Pass	
Requirements for software controlled detectors	4.2.7		Pass	
<b>Nominal activation conditions/Sensitivity:</b>				
Reproducibility	4.3.1		Pass	
Repeatability	4.3.2		Pass	
Tolerance to beam misalignment	4.3.3		Pass	
Rapid change in attenuation	4.3.4		Pass	
Response to slowly developing fires	4.3.5		Pass	
Optical path length dependence	4.3.6		Pass	
Stray light	4.3.7		Pass	
<b>Tolerance to supply voltage:</b>				
Variation in supply parameters	4.4		Pass	
<b>Performance parameters under fire conditions:</b>				
Fire sensitivity	4.5		Pass	
<b>Durability of nominal activation conditions/Sensitivity:</b>				
temperature resistance				
Dry heat (operational)	4.6.1.1	Pass		
Cold (operational)	4.6.1.2	Pass		
Humidity resistance				
Damp heat, steady-state (operational)	4.6.2.1	Pass		
Damp heat, steady-state (endurance)	4.6.2.2	Pass		
Vibration resistance				

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Vibration (endurance)	4.6.3.1		Pass
Impact (operational)	4.6.3.2		Pass
Electrical stability EMC immunity (operational)	4.6.4		Pass
Corrosion resistance			
Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance)	4.6.5		Pass

Essential characteristics	Clauses in EN 54-17:2005	Performance
Performance under fire conditions	5.2	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

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Annex 2

**TEST DOCUMENTATION**

Accredited Laboratory	Report no.	Date
BRE	TE 231638	2007-09-19
BRE	TE 231638-SW-A	2007-06-05
BRE	TE 231638-SW-B	2007-06-05
BRE	TE 244651-SW-A	2009-02-19
BRE	TE 244651-SW-B	2009-02-19
BRE	TE 250758	2009-07-09
BRE	TE 281233 Revision 1	2014-02-03
BRE	TE 291795 Issue: 1	2016-02-04
BRE	TE 291795-SW Issue: 1	2016-01-18
BRE	TE-P109763-1001 Issue: 1	2019-04-09
BRE	TE-P109576-1001 Issue: 1	2019-04-09

**TECHNICAL BASIS**

File Number	Title	Date
F5K 50M EN SYS AA APO	Firearay 5000 50m EN Addressable System for Apollo - SA7100-100APO	2021-10-20
98-5000-119-13 - F5K 8-50m EN SYS APO	Critical component list	2019-04-04
PP2414/2013/Issue 2	Apollo Circuit Diagram	

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