



Date of Issue – 17 July 2013
Construction Products Regulation
EU 305/2011

APOLLO FIRE DETECTORS LTD
DECLARATION OF PERFORMANCE
No. CD0009/FG/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.

1. Unique identification code of the product-type:

a) Manual Call Points

55100-905, 55100-908, 55100-940, 58100-905, 58100-910, 58100-950, 58100-951¹⁾
XPA-MC-14006-APO²⁾

b) Input/Output Devices

XPA-IN-14007-APO, XPA-IN-14011-APO, XPA-IN-14012-APO³⁾

c) Sounders

45681-265, 45681-266, 45681-267, 45681-268, 55000-278, 55000-291, 55000-293,
55000-296, 55000-298, 58000-010, 58000-020, 58000-030, 58000-040⁴⁾
45681-276⁵⁾

d) Non-Isolating Bases

45681-200, 45681-201, 45681-210, OEX-MB-00016-APO, ORB-DB-00003-APO,
ORB-MB-00001-APO, ORB-MB-00012-APO (these bases have no intrinsic function)

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 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):

¹⁾ KAC Alarm Company Ltd, KAC House, Thornhill Road, North Moons Moat, Redditch, Worcestershire, B98 9ND

²⁾ EMS Security Group Limited, Technology House, Sea Street, Herne Bay, Kent, CT6 8JZ

³⁾ EMS Security Group Limited, Technology House, Sea Street, Herne Bay, Kent, CT6 8JZ

⁴⁾ Cooper Fulleon Limited, Llantarnam Park, Cwmbran, South Wales, NP44 3AW

⁵⁾ Echo Electronics Co Ltd, Dabuxiang Village, Guanlan Town, Bao'an, Shenzhen, PRC

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

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 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

Manual Call Points

Essential characteristics	Declared Performance	Harmonised technical specification
Nominal activation conditions/Sensitivity and Performance under fire conditions	1) Transfer from the normal condition to the alarm condition is achieved by displacing the frangible element without breaking, together with changing the appearance of the operating face. 2) The alarm condition is indicated by displaced frangible element and additional visual indicator (red LED). 3) The manual call point complies with safety aspects of clause 4.7.1- risk of injury when operating the frangible element eliminated, corners and edges of the manual call point rounded to reduce the possibility of injury 4) Transparent flap (if used) is easily and immediately removable with clear instructions for its removal 5) The manual call point is able to operate when appropriate force is applied to the frangible element and its reset and test facilities are not impaired 6) The electrical parts of the manual call point function correctly under function test	EN54-11:2001
Operational reliability	1) Each manual call point is permanently marked with obligatory information as per clause 4.2 2) The normal condition of the manual call point is easily recognizable as per clause 4.7, the frangible element is flat and is not broken, deformed or displaced 3) The manual call point can be reset only by using a special key 4) The manual call point after testing can be reset without breaking the frangible element by using a special key 5) Shape, dimensions and colour of the manual call point comply with clause 4.7.2 requirements 6) Symbols and lettering on the front face and the operating face comply with clause 4.7.3 7) The environmental category of the manual call point is specified on the manual call point label. The manual call point was tested in accordance with the specified environmental category. 8) For manual call points which rely on software control the requirements of clause 4.8 is met. 9) The manual call point was tested to clause 5.4 Test facility test and is resettable only by using a special tool 10) The manual call point was tested to clause 5.5 Reliability test and there wasn't any visible damage to the specimen likely to impair its operation. The specimen is compliant with test requirements	

Durability of operational reliability; temperature resistance	1) The manual call point is compliant with clause 5.7 Dry heat (operational) test. Mentioned test demonstrated that the manual call point functions correctly at high ambient temperatures 2) The manual call point is compliant with clause 5.8 Dry heat (endurance) test and the ability to withstand long term ageing effects of the manual call point was demonstrated * 3) The manual call point is compliant with clause 5.9 Cold (operational) test and it was been demonstrated that the manual call point functions correctly at low ambient temperatures appropriate to the anticipated service environment	EN54-11:2001
Durability of operational reliability; vibration resistance	1) The manual call point is compliant with clause 5.14 Shock (operational) test. The shock test demonstrated the immunity of the manual call point to mechanical shocks in the anticipated environment 2) The manual call point is compliant with clause 5.17 Vibration, sinusoidal (endurance) test. The vibration test demonstrated the ability of the manual call point to withstand the long term effects of vibration at levels appropriate to the normal service environment	
Durability of operational reliability; humidity resistance	1) The manual call point is compliant with clause 5.10 Damp heat, cyclic (operational) test. The damp heat test demonstrated the ability of the manual call point to function correctly at high relative humidity, where condensation occurs on the manual call point 2) The manual call point is compliant with clause 5.11 Damp heat, cyclic (endurance) test. The damp heat test demonstrated the ability of the manual call point to withstand the longer term effect of high humidity and condensation* 3) The manual call point is compliant with clause 5.12 Damp heat, steady state (endurance) test. The damp heat test demonstrated the ability of the manual call point to withstand the long term effects of humidity in the service environment 4) The manual call point is compliant with clause 5.19 Enclosure protection test. The enclosure protection test demonstrated that the manual call point is adequately protected against the ingress of water*	
Durability of operational reliability; corrosion resistance	1) The manual call point is compliant with clause 5.11 Damp heat, cyclic (endurance) test. The damp heat test demonstrated the ability of the manual call point to withstand the longer term effect of high humidity and condensation 2) The manual call point is compliant with clause 5.13 SO₂ corrosion (endurance) test. The SO₂ corrosion test demonstrated the ability of the manual call point to withstand the corrosive effects of sulphur dioxide as an atmospheric pollutant	
Durability of operational reliability; electrical stability	1) The manual call point is compliant with clause 5.6 Variation of supply parameters test. The variation of supply parameters test demonstrated that within the manufacturer's specified upper and lower limits of the supply parameters, the ability of the manual call point to signal an alarm is not unduly dependent on these parameters for correct operation 2) The manual call point is compliant with clause 5.18 Electromagnetic compatibility EMC (operational) test. The EMC test demonstrated the capability of the manual call point to comply with the EMC immunity requirements in its normal service environment^	

* Outdoor devices only

^ Devices with active electronic components only

Input/Output Devices

Essential characteristics	Declared Performance	Harmonised technical specification
Response delay (response time)¹⁾	1. Input/output devices are compliant with clause 5.2 Performance and variation of supply parameters test. Mentioned test demonstrated the ability of the input/output devices to function correctly in accordance with the manufacturer's specifications, at the upper and lower limits of the supply parameters specified by the manufacturer	EN54-18:2005
Performance under fire conditions	1. Input/output devices are compliant with clause 5.1.4 Functional test- each function of the input/output devices shall be activated by a suitable means in accordance with the manufacturer's specification, and appropriate observations or measurements shall be made to confirm the correct operation of the device	
Operational reliability	1. Input/output devices are compliant with clause 5.1.4 Functional test- each function of the input/output devices shall be activated by a suitable means in accordance with the manufacturer's specification, and appropriate observations or measurements shall be made to confirm the correct operation of the device	
Durability of operational reliability and response delay; temperature resistance	1. Input/output devices are compliant with clause 5.3 Dry heat (operational) test, which demonstrated the ability of the input/output devices to function correctly at high ambient temperatures 2. Input/output devices are compliant with clause 5.4 Cold (operational) test, which demonstrated the ability of the input/output devices to function correctly at low ambient temperatures appropriate to the anticipated service environment	

Durability of operational reliability; vibration resistance	1. Input/output devices are compliant with clause 5.8 Shock (operational) test. The shock test demonstrated the immunity of the input/output devices to mechanical shocks in the anticipated environment 2. Input/output devices are compliant with clause 5.9 Impact (operational) test. Mentioned test demonstrated the immunity of the input/output devices to mechanical impacts upon their surface 3. Input/output devices are compliant with clause 5.10 Vibration, sinusoidal (operational) test. Mentioned test demonstrated the immunity of the input/output devices to vibration at levels considered appropriate to the normal service environment 4. Input/output devices are compliant with clause 5.11 Vibration, sinusoidal (endurance) test. Mentioned test demonstrated the ability of the input/output devices to withstand the long-term effects of vibration at levels appropriate to the service environment	EN54-18:2005
Durability of operational reliability; humidity resistance	1. Input/output devices are compliant with clause 5.5 Damp heat, cyclic (operational) test. The damp heat test demonstrated the ability of the input/output devices to function correctly at high relative humidity (with condensation) 2. Input/output devices are compliant with clause 5.6 Damp heat, steady state (endurance) test. Mentioned test demonstrated the ability of the input/output devices 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.)	
Durability of operational reliability; corrosion resistance	1. Input/output devices are compliant with clause 5.7 SO₂ corrosion (endurance) test. Mentioned test demonstrated the ability of the input/output devices to withstand the corrosive effects of sulphur dioxide as an atmospheric pollutant	
Durability of operational reliability; electrical stability	1. Input/output devices are compliant with clause 5.2 Performance and variation of supply parameters test. Mentioned test demonstrated the ability of the input/output devices to function correctly in accordance with the manufacturer's specifications, at the upper and lower limits of the supply parameters specified by the manufacturer 2. Input/output devices are compliant with clause 5.12 Electromagnetic compatibility (EMC), immunity tests. Input/output devices passed the following tests: electrostatic discharge, radiated electromagnetic fields, conducted disturbances induced by electromagnetic fields, fast transient bursts, slow high energy voltage surges	

¹⁾ Response delays may not be a function of the input/output device, in which case no assessment is made as part of this standard

Sounders

Essential characteristics	Declared Performance	Harmonised technical specification
Performance under fire condition	1) Sounders are compliant with clause 4.2 Sound level section. Sound levels are given in data sheet PP2203. 2) As per clause 4.3 sound frequencies, frequency ranges and sound patterns have been declared in relevant installation guides and PP guides 3) Sounders are compliant with clause 5.2 Reproducibility test. Mentioned test confirmed that the sound output of the sounders does not vary unduly from specimen to specimen and established sound output data for comparison with the sound output measured during and/or after specified environmental tests 4) Sounders are compliant with clause 5.3 Operational performance test. Mentioned test confirmed that the sound levels declared by the manufacturer can be achieved within the specified ranges of supply parameters and is not unduly dependent on these parameters, and that the maximum A-weighted sound level does not exceed 120 dB at 1m	EN54-3:2001
Operational reliability	1) As per clause 4.4 and 5.4 sounders are rated for at least 100 hours operation. No limitation by the manufacturer on duty factor or maximum on-time prevented the devices from operating the 1h 'on' 1h 'off' cycle required by the test procedure. Durability test confirmed that the sound level does not change significantly after prolonged operation of the audible alarm device 2) Sounders comply with Construction clause 4.5 3) Sounders are clearly marked and required data is provided to comply with clause 4.6 requirements	

Durability of operational reliability; temperature resistance	1) Sounders are compliant with clause 5.5 Dry heat (operational) test. Mentioned test demonstrated the ability of the sounders to function correctly at high ambient temperatures 2) Sounders are compliant with clause 5.6 Dry heat (endurance) test. Mentioned test demonstrated the ability of the sounders to withstand long-term ageing effects ¹⁾ 3) Sounders are compliant with clause 5.7 Cold (operational) test. Mentioned test demonstrated the ability of the sounders to function correctly at low ambient temperatures appropriate to the anticipated service environment 4) Sounders are compliant with clause 5.8 Damp heat, cyclic (operational) test. Mentioned test demonstrated the immunity of the sounders to an environment with high relative humidity, where condensation may occur on the devices 5) Sounders are compliant with clause 5.9 Damp heat, steady state (endurance) test. Mentioned test demonstrated the ability of the sounders to withstand the long-term effects of humidity in the service environment (e.g. changes in the electrical properties due to absorption, chemical reactions involving moisture, galvanic corrosion etc.)	EN54-3:2001
Durability of operational reliability; humidity resistance	1) Sounders are compliant with clause 5.8 Damp heat, cyclic (operational) test. Mentioned test demonstrated the immunity of the sounders to an environment with high relative humidity, where condensation may occur on the devices 2) Sounders are compliant with clause 5.9 Damp heat, steady state (endurance) test. Mentioned test demonstrated the ability of the sounders to withstand the long-term effects of humidity in the service environment (e.g. changes in the electrical properties due to absorption, chemical reactions involving moisture, galvanic corrosion etc.) 3) Sounders are compliant with clause 5.10 Damp heat, cyclic (endurance) test. Mentioned test demonstrated the ability of the sounders to withstand the longer-term effects of high humidity and condensation¹⁾	
Durability of operational reliability; corrosion resistance	1) Sounders are compliant with clause 5.11 SO ₂ corrosion (endurance) test. Mentioned test demonstrated the ability of the sounders to withstand the corrosive effects of sulphur dioxide as an atmospheric pollutant	
Durability of operational reliability; shock and vibration resistance	1) Sounders are compliant with clause 5.12 Shock (operational) test. Mentioned test demonstrated the immunity of the sounders to mechanical shocks in the anticipated service environment 2) Sounders are compliant with clause 5.13 Impact (operational) test. Mentioned test demonstrated the immunity of the sounders to mechanical impacts upon their surface 3) Sounders are compliant with clause 5.14 Vibration, sinusoidal (operational) test. Mentioned test demonstrated the immunity of the sounders to vibration at levels considered appropriate to the normal service environment 4) Sounders are compliant with clause 5.15 Vibration, sinusoidal (endurance) test. Mentioned test demonstrated the ability of the audible alarm devices to withstand the long-term effects of vibration at levels appropriate to the service environment	
Durability of operational reliability; electrical stability	1) Sounders are compliant with clause 5.16 Electromagnetic compatibility (EMC), immunity tests (operational). Mentioned tests demonstrated the immunity of the sounders to electrostatic discharges, electromagnetic fields and fast low energy and slow high energy transients ²⁾	
Durability of operational reliability; resistance to ingress	1) Sounders are compliant with clause 5.17 Enclosure protection test. Mentioned test demonstrated that the degree of protection provided by the enclosure of the fire alarm sounders, with regard to the ingress of solid foreign objects and the harmful effects due to the ingress of water, met the minimum requirements	

¹⁾Applies only to outdoor sounders

²⁾Applies only to sounders with active electronic components

Declared performance of products with short-circuit isolator is shown in table below.

Essential characteristics	Declared Performance	Harmonised technical specification
Performance under fire conditions	1) Devices with short-circuit isolator are compliant with clause 5.2 Reproducibility test. Mentioned test showed that each specimen meets the manufacturer's specification ¹⁾	EN54-17: 2005
Operational reliability	1) Devices with short-circuit isolator are compliant with clause 4 conforming to the following requirements: integral status indication, connection of ancillary devices, monitoring of detachable short-circuit isolators, manufacturer's adjustments and on-site adjustments	
Durability of operational reliability and response delay; temperature resistance	1) Devices with short-circuit isolator are compliant with clause 5.4 Dry heat (operational) test. Mentioned test demonstrated the ability of the short-circuit isolator to function correctly at high ambient temperatures appropriate to the anticipated service environment 2) Devices with short-circuit isolator are compliant with clause 5.5 Cold (operational) test. Mentioned test demonstrated the ability of the short-circuit isolator to function correctly at low ambient temperatures appropriate to the anticipated service environment	

Durability of operational reliability; vibration resistance	1) Devices with short-circuit isolator are compliant with clause 5.9 Shock (operational) test. Mentioned test demonstrated the immunity of the short-circuit isolator mechanical shocks in the anticipated service environment 2) Devices with short-circuit isolator are compliant with clause 5.10 Impact (operational) test. Mentioned test demonstrated the immunity of the short-circuit isolator to mechanical impacts upon its surface 3) Devices with short-circuit isolator are compliant with clause 5.11 Vibration, sinusoidal (operational) test. Mentioned test demonstrated the immunity of the short-circuit isolator to vibration at levels considered appropriate to the normal service environment 4) Devices with short-circuit isolator are compliant with clause 5.12 Vibration, sinusoidal (endurance) test. Mentioned test demonstrated the ability of the short-circuit isolator to withstand the long-term effects of vibration at levels appropriate to the service environment	EN54-17: 2005
Durability of operational reliability; humidity resistance	1) Devices with short-circuit isolator are compliant with clause 5.6 Damp heat, cyclic (operational) test. Mentioned test demonstrated the ability of the short-circuit isolator to function correctly at high relative humidity (with condensation), which can occur for short periods in the anticipated service environment 2) Devices with short-circuit isolator are compliant with clause 5.7 Damp heat, steady state (endurance) test. Mentioned test demonstrated the ability of the short-circuit isolator 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.)	
Durability of operational reliability; corrosion resistance	1) Devices with short-circuit isolator are compliant with clause 5.8 SO₂ corrosion (endurance) test. Mentioned test demonstrated the ability of the short-circuit isolator to withstand the corrosive effects of sulphur dioxide as an atmospheric pollutant	
Durability of operational reliability; electrical stability	1) Devices with short-circuit isolator are compliant with clause 5.3 Variation in supply voltage test. Mentioned test showed that the short-circuit isolator meets the manufacturer's specifications for the specified range of supply voltage 2) Devices with short-circuit isolator are compliant with clause 5.13 Electromagnetic compatibility (EMC), immunity tests (operational). Mentioned tests demonstrated the immunity of the short-circuit isolator to electromagnetic interference	

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

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, 17/07/2013

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

.....
(signature)