




TYPE APPROVAL CERTIFICATE
No. ELE186017XG/002

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Fire detectors
<i>Type</i>	Apollo XP 95 IS analogue addressable ionisation smoke detector; intrinsically safe type; including - detector head: model 55000-540 - detector base: model 45681-215
<i>Applicant</i>	APOLLO FIRE DETECTORS LIMITED 36 Brookside Road Havant, Hampshire PO9 1JR UNITED KINGDOM
<i>Manufacturer</i>	APOLLO FIRE DETECTORS LIMITED
<i>Place of manufacture</i>	36 Brookside Road Havant, Hampshire PO9 1JR UNITED KINGDOM
<i>Reference standards</i>	.Rules for the Classification of Ships-Part C - Machinery, Systems and fire protection - Ch. 2, Sect. 6 , Tab. 1 and EN 54-7:2000 + A1:2002 + A2:2006

Issued in **HAMBURG** on **October 23, 2017**. This Certificate is valid until **October 22, 2022**



RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure



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**Apollo XP 95 IS analogue addressable ionisation smoke detector
intrinsically safe type
including**

- detector head: model 55000-540

- detector base: model 45681-215

Product description:

The sensing part of the detector consist of two chambers - an open, outer chamber and a reference chamber within.

Mounted in the reference chamber is a low-activity radioactive foil of Americium 241 which enables current to flow across the inner and outer chambers when the detector is powered up.

A smoke enters the detector, it causes a reduction of the current flow in the outer chamber and hence an increase in the voltage measured at the junction between the two chambers. This analogue voltage signal is converted to a digital signal by the electronic circuitry and transmitted to the control panel on interrogation. The micro-processor in the control equipment then compares the signal with stored data and initiates a pre-alarm or fire alarm as smoke density increases. When a fire condition exists, the panel instructs the detector to switch on its indicator LED.

Communication protocol: Apollo XP 95

Supply wiring: two wire , polarity sensitive.

To enable the use of standard control and indicating equipment with an XP95 intrinsically safe device, a *protocol translator* must be used, as the maximum voltage and current levels used in the standard XP 95 protocol are outside the limits of intrinsically safe systems. These are devices that modifies voltage levels from a standard XP95 loop driver to levels compatible with the intrinsically safe protocol specification. The translator also amplifies the current pulses returned by the XP 95 intrinsically safe detector.

Two protocol translators are available:

Single channel : part n° 55000-855 Dual channel: part n° 55000-856

Suitable safety barriers are to be used between the translator and the hazardous area, in order to comply with the relevant applicable safety requirements.

Documents:

- Engineering product guide PP1095/2005/Issue 4; XP 95 Engineering Product Guide PP1039/2008/Issue 10

Test Reports:

LPC: - TE82646 dated Jan. 1993, TE88019 dated Jan. 1997, TE90086 dated 06/ 01/1998, TE89125 dated 06/ 09/1997,
- TE90089 dated 07/01/1998, TE90090 dated 07/01/1998, TE89128 dated 25/ 11/1997, TE89129 dated 25/ 11/1997,
BRE / LPCB: - TE221267 dated 07/07/2005, TE223930 dated 09/12/2005; TE288681 Issue 1 dated 19 December 2016

Safety certificates:

SGS Baseefa Limited: - IECEx BAS 12.0091X issue 3 dated 2015-03-23

Marking:

Ex ia IIC T5 Ga (-20°C ≤ Ta ≤ +45°C); Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +60°C); Ex ia IIIC T135°C Da (-20°C ≤ Ta ≤ +60°C)

Remarks:

- This certificate replace the certificate no.: ELE114012XG/002.



HAMBURG October 23, 2017