



**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>	<b>Fire detectors</b>
<i>Type</i>	<b>Apollo XP 95 IS analogue addressable optical smoke detector; intrinsically safe type, including: - detector head: model 55000-640; - detector base: model 45681-215</b>
<i>Applicant</i>	<b>APOLLO FIRE DETECTORS LIMITED 36 Brookside Road Havant, Hampshire PO9 1JR UNITED KINGDOM</b>
<i>Manufacturer</i>	<b>APOLLO FIRE DETECTORS LIMITED</b>
<i>Place of manufacture</i>	<b>36 Brookside Road Havant, Hampshire PO9 1JR UNITED KINGDOM</b>
<i>Reference standards</i>	<b>.Rules for the Classification of Ships-Part C - Machinery, Systems and fire protection - Ch. 2, Sect. 6 , Tab. 1 and EN 54-7:2000</b>

*Issued in* **HAMBURG** on **December 14, 2019**. *This Certificate is valid until* **October 22, 2022**

  
RINA Services S.p.A.  
**Giuseppe Russo**

This certificate consists of this page and 1 enclosure



## TYPE APPROVAL CERTIFICATE

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**Apollo XP 95 IS analogue addressable optical smoke detector  
intrinsically safe type, including:**  
**- detector head: model 55000-640**  
**- detector base: model 45681-215**

### Product description:

The XP 95 IS optical detector incorporate a pulsing LED located in a labyrinth within the housing of the detector.

The labyrinth is designed to exclude light from any external source. At an obtuse angle to the LED is a photo-diode which, in clear air condition, does not receive light directly from the LED.

When smoke enters the labyrinth, light is scattered onto the photo-diode and the signal to the panel increases.

The signal is processed by the electronic circuitry and transmitted to the control equipment.

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

- XP95 IS Optical (55000-640) Modifications

### Test reports:

LPC: - TE82647 dated July 1993, TE84654 dated June 1994, TE88020 dated 25/02/1997, TE89126 dated 16/09/1997,

- TE89128 dated 25/11/1997, TE89129 dated 25/11/1997, TE90087 dated 06/01/1998, TE90089 dated 07/01/1998,

- TE90090 dated 07/01/1998

BRE / LPCB: - TE220279 dated 22/07/2005, TE223930 dated 09/12/2005; TE288681 Issue 1 dated 19 December 2016

Tests after modification: EMC Test Report No. 1488 IR, issue#2 15.10.2018; BRE Global Test Report TE OPP001688, dated 16.07.2019

### Safety certificates:

SGS Baseefa Limited: - IECEx issue 4 dated 2017-09-14

### 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.: ELE186017XG/001.

- The new SGS Baseefa certificate revision, reflecting implemented modification, is to be submitted for our information in 3 months from issue date.

HAMBURG December 14, 2019



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