



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Apollo Fire Detectors Ltd
Address	36 Brookside Road, Havant, PO9 1JR, United Kingdom
Type	Fire Detection and Alarm System
Description	Optical Smoke Detector
Trade Name	ORBIS Range
Application	Marine, offshore and industrial use in Environmental categories ENV1,ENV2 andENV3 as defined in Lloyd's Register Test Specification No. 1: 2015
Specified Standard	EN54-7:2018 IEC60092-504:2016 IEC 60533:2015
Additional Tests	Hazardous Areas Components (ATEX): EEX II 1G Ex ia IIC T4 (- 40° C ≤ Ta ≤ + 60° C) / T5(- 40° C ≤ Ta ≤ + 40° C)
Other Conditions	<ol style="list-style-type: none">1.Type Approval of products according to Test Specification No. 1 is essentially for hardware. Examination of software aspects is restricted to functional operation as demonstrated in the Performance Test.2.The requirements of the Lloyd's Register (LR)Rules apply when the equipment is installed on LR Classed vessels and offshore installations.3.Maximum operating voltage is 28V in accordance with specification.4.Screenedcable is to be used for all installations.

Matt Higgins

Electrical & Control - Senior Specialist to
Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Certificate No: LR2332216TA-01
Issue Date: 13/07/2023
Expiry Date: 25/01/2028

Type Approval Certificate

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 04/00088(E5)LR2332216TA

The Design Appraisal Document LR2332216TA-01 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Certificate No: LR2332216TA-01
Issue Date: 13-July-2023
Expiry Date: 25-January-2028
Reference: UKITSO/TA/ETS/MJH/WP50997357

LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issue by: UKITSO SOUTHAMPTON
Issued to: APOLLO FIRE DETECTORS LTD.
For: OPTICAL SMOKE DETECTOR
Type: ORBIS RANGE

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

2531-CPR-CSP11158 Certificate of Constancy of Performance	13 Jul 2022
ISO 9001: 2015 Cert No 010 Issue 19	6 Jul 2021
Schedule of Accreditation BRE Global Ltd Issue 128	17 Feb 2022

DATASHEETS

38531-969 – Revision 4 – Orbis Optical Chamber	07 Aug 2015
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TEST REPORTS

TE-P105642-1001 Iss1 BRE Global Test Report	21 Mar 2021
P105641/1.2 Test schedule for EMC Update of Various Products (Phase One)	13 Mar 2018
Lloyd's Register Inspection and Surveillance of Production Facilities SOU 1400418	25 Apr 2014
BRE Covering Letter for Test Report TE101167-1001	14 Aug 2015
BRE Test Report TE101167-1001, issue 1	14 Aug 2015

Matt Higgins MIET
Senior Electrical Specialist
Engineering Systems
UK&I Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor

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approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.



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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2332216TA-01

Appendix

TYPE

ORBIS Range comprising of:

ORB-MB-00001-MAR: Orbis Time Saver base

ORB-RB-40004-MAR: Orbis Time Saver relay base

ORB-OP-42001-MAR with Sens Alert, Fast Test and Dirt Alert

ORB-OP-42003-MAR with Sens Alert, Fast Test and Dirt Alert and Flashing LED

ORBIS IS (Intrinsically Safe) Range comprising of:

ORB-OP-52027-APO: with Sens Alert, Fast Test and Dirt Alert

ORB-OP-52028-APO: with Flashing LED, Sens Alert, Fast Test and Dirt Alert

ORB-MB-50018-APO: Orbis IS Time Saver Base

ORB-BA-50008-APO: Orbis IS Base Adaptor (in conjunction with 45681-207 base)

A handwritten signature in black ink, appearing to be 'M. H. Jones'.