



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 30/OCT/2017. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 10/MAR/2021 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Gas Detector, Infrared
Model Name(s): Searchpoint Optima Plus (with optional HART) Infrared Point Gas Detector

Presented to:

HONEYWELL ANALYTICS
HATCHPOND HOUSE, 4 STINSFORD ROAD
NUFFIELD INDUSTRIAL ESTATE
United Kingdom

Intended Service:	For use on ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards
Description:	Advanced infrared point gas detector certified for use in potentially explosive atmospheres
Ratings:	Power Supply: 18-32V DC (24V nom), 4.5W max, 4-20mA sink or source output Temperature range -40C to +65C, IP66/67 Explosion proof types certified: IECEx: II 2 GD Ex d op is IIC Gb Ex tb IIIC Db T86°C (Tamb -40°C to +55°C) or T96°C (Tamb -40°C to +65°C) IP66/67
Service Restrictions:	Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
Comments:	Each application is to be specifically approved and in accordance with the type of protection and markings as indicated on the corresponding IECEx Certificate of Conformity. Special conditions for safe use in accordance with Certificate IECEx BAS 13.0069X: 1. The integral leads must be suitably terminated and protected from impact 2. For replacement purposes the cover fixing screws shall be grade A4-80 minimum. 3. Optical power through the Search point Optima Plus is to be

limited to a radiated power of less than 35mW and a peak power density of less than 5mW/mm2 as defined by IEC 60079-28 The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes / Documentation:

Drawing No. 2108E0036, Cert DRG searchpoint optima plus assembly, Revision: 7, Pages: 1 Drawing No. 2108E0037, Cert DRG casing casing searchpoing optima plus, Revision: 3, Pages: 1 Drawing No. 2108E0038, Cert Brawing searchpoing optics head optima plus, Revision: 1, Pages: 1 Drawing No. 2108E0039, cert drawing optima plus accessories, Revision: 7, Pages: 1 Drawing No. 2108E0042, Cert DRG S'point optima plus clearance between body and protective cover, Revision: 1, Pages: 1 Drawing No. 2108E0044, Cert DRG searchpoing optima 2 alternative assembly, Revision: 2, Pages: 1 Drawing No. 2108E0045, cert label consilium trade mark ATEX/IECEX, Revision: 0, Pages: 1 Drawing No. GB/BAS/ExTR13.0148/00, Optima Plus IECEx Test Report GB, Revision: 0, Pages: 7 Drawing No. GB/BAS/ExTR14.0253/00, Optima Plus IECEx Test Report GB, Revision: 0, Pages: 4 Drawing No. IECEx BAS 13.0069X issue 0, Optima Plus IECEx CofC IECEx BAS 13, Revision: 0, Pages: 4 Drawing No. IECEx BAS 13.0069X issue 1, Optima Plus IECEx CofC IECEx BAS 13, Revision: 0, Pages: 4 Drawing No. IECEx BAS 13.0069X issue 2, Optima Plus IECEx CofC IECEx BAS 13, Revision: 0, Pages: 4

Term of Validity:

This Product Design Assessment (PDA) Certificate 16-LD1488737-PDA, dated 11/Mar/2016 remains valid until 10/Mar/2021 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

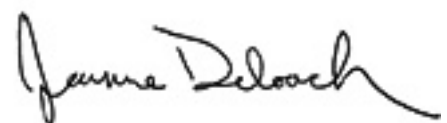
- Steel Vessels (2016): 1-1-4/7.7, 1-1-A3&A4 4-8-3/1.7, 4-8-3/1.11, 4-8-3/13.3.2, 4-8-4/27.5.1 - Steel Vessels Under 90 Meters (295 Feet) in Length (2016): 1-1-4/7.7, 1-1-A3&A4, 4-6-1/11, 4-6-1/15, 4-6-3/11.1.1 (a) Explosion-proof (XP), 4-6-3/11.3.1 (a) - Mobile Offshore Drilling Units (2016): 1-1-4/9.7, 1-1-A2&A3, 4-3-1/3.7, 4-3-1/15, 4-3-3/9.1.2 (b), 4-3-3/9.3.1 - Offshore Support Vessels (2016): 1-1-4/7.7, 1-1-A3&A4 4-8-3/1.7, 4-8-3/1.11, 4-8-3/13.3.2, 4-8-4/29.5.1 - Facilities on Offshore Installations (2016): 1-1-4/9.7, 1-1-A2&A3 - Steel Vessels for Service on Rivers and Intracoastal Waterways (2016): 1-1-4/7.7, 1-1-A3&A4, 4-5-1/3.9, 4-5-1/17, 4-5-3/11.1.1(a) Explosion-proof (XP), 4-5-3/11.3.1(a) - High-Speed Craft (2016): 1-1-4/11.9, 1-1-A2&A3; 4-6-1/3.9, 4-6-3/9.1.1(a) Explosion-proof (XP), 4-6-3/9.1.1(a), 9.3.1 - Steel Barge (2016): 1-1-4/7.9, 1-1-A3&A4

**National Standards:
International Standards:**

IEC 60079-0:2011 Edition 6 IEC 60079-1:2007 Edition 6 IEC 60079-28:2006 Edition 1 IEC 60079-31:2013 Edition 2

**Government Authority:
EUMED:
Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	16-LD1488737-PDA	11/MAR/2016	10/MAR/2021



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in

class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.