

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Gas Detector**

with type designation(s)

Searchpoint: Optima Plus, Optima X, Optima Z, Optima with Hart

Issued to

**Honeywell Analytics
Dorset, United Kingdom**

is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**Application :****Location classes:**

Temperature	A
Humidity	B
Vibration	A
EMC	A
Enclosure	C / IP66 and IP67

This Certificate is valid until **2016-12-31**.Issued at **Høvik** on **2015-02-12**DNV GL local station: **Southampton**Approval Engineer: **Andrzej Gdaniec**for **DNV GL**

.....
Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Certificate No: **A-14148**
File No: **473.30**
Job Id: **262.1-014465-3**

Product description

Searchpoint Optima Plus:

designed for use in potentially hazardous areas where it provides hydrocarbon gas and vapor detection. Searchpoint Optima Plus uses the dual wavelength infrared absorption principle to detect hydrocarbon gases and vapors in various concentration ranges. Searchpoint Optima Plus is supplied calibrated and linearized for a specific target gas. A wide selection of gases is available in 0-100% LEL range, as well as some ppm range options.

Software version: 6V2.

Searchpoint Optima X:

is a variant of Searchpoint Optima Plus exclusively for use in sampling systems. A fast speed of response is made possible by minimizing the volume of the sample cell.

Software version: 6V2.

Searchpoint Optima Z:

is a variant of Searchpoint Optima Plus optimized for the detection of the solvents ethanol, ethyl acetate, propane, ethylene, 2-propanol, 2-butanone, 1-butanol, toluene, acetone, n-hexane, mineral spirit 60/95, o-xylene, 1-butyl acetate, cyclohexane mixed with air in the measuring range 0-100% LEL. It is exclusively for use in sampling systems.

Software version: 6V2.

Searchpoint Optima with HART:

all versions of Searchpoint Optima Plus can be supplied with HART over 4-20 mA communications. HART (Highway Addressable Remote Transducer) is a widely used digital communications protocol, which allows users to access live data, status indications and diagnostic information from intelligent field devices. It works by superimposing a digital signal on the existing analogue signal.

Software version for all type designations with HART: 6V2.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex installations to be approved in each case according to DNV Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV GL.

Information on Ex-Certification received from manufacturer – Not verified by DNV GL	
Certified	Certificate No.
⊕ II 2GD Ex d op is IIC Gb Ex tb IIIC Db T86°C (Ta -40°C to +55°C) T96°C (Ta -40°C to +65°C)	SGS Baseefa Baseefa13ATEX0296X/1 dated 2014-09-05

Type Approval documentation

[Searchpoint Optima Plus with optional HART® output Operating Instructions 2108M0550 No. MAN905 Issue 5_12/13](#)

[Searchpoint Optima Plus, Operating Instructions No. MAN0551, Issue_11_04/12](#)

[Searchpoint Optima Plus with optional HART, data Sheet Ref. H Searchpoint Optima Plus _DS0276_V9 EMEAI dated 08/13](#)

[Searchpoint Optima Plus, Installation Guide, No. MAN0838_Issue 3_05/10](#)

Certificate No: **A-14148**
File No: **473.30**
Job Id: **262.1-014465-3**

Drawings No. 2108E0036 Iss.7, 2108E0037 Iss.3, 2108E0038 Iss.1, 2108E0039 Iss.7, 2108E0044 Iss.2, 2108E0042 Iss.1, 2108E0045 Iss.1

Searchpoint Optima Plus Manual Addendum for Optima X, No. MAN0914_Issue 5_01/13 Searchpoint Optima Z data sheet Ref.: H_Optima Z_DS01063_V5_EMEAI, 2108M0511_Issue 3_A03812 07/12

Test reports:

Assessment Services Ltd. Test Report No. SH104438/CJL, dated 1994-10-20

TUV Test Report No. 75915351 Report 01 Issue 1, dated 2011-09-20

TUV Test Report No. 75911851 Report 01 Issue 1, dated 2011-03-01

IECEX Test Report GB BAS.ExTR13.0148.00 dated 14.05.2014

DEKRA / EXAM GmbH Test Report for Searchpoint Optima X No. PFG-no.41300406P NIII, dated 2011-09-12

DEKRA / EXAM GmbH Test Report for Searchpoint Optima Z No. PFG-no.41300406P NIV, dated 2011-03-24

DEKRA / EXAM GmbH Test Report for Searchpoint Optima Plus No. PFG-no.41300406P NV, dated 2011-07-06

DEKRA / EXAM GmbH Test Report for Searchpoint Optima Plus No. PFG-no.41300406P NVI, dated 2012-08-03

DEKRA/EXAM Test Report Searchpoint Optima Plus with optional HART® Interface, Searchpoint Optima Z with optional HART® Interface, Searchpoint Optima X with optional HART® Interface PFG-no.41300406P NVII dated 2013-01-24

DEKRA/EXAM Test Report Searchpoint Optima Plus with optional HART® Interface, Searchpoint Optima Z with optional HART® Interface, Searchpoint Optima X with optional HART® Interface PFG-no.41300406P NVIII dated 2013-10-28

DEKRA/EXAM Test Report Searchpoint Optima Plus with optional HART® Interface, Searchpoint Optima Z with optional HART® Interface, Searchpoint Optima X with optional HART® Interface PFG-no.41300406P NIX dated 2014-07-09

Test Report TL 13010-ENV, dated 2013-03-04,

Test Report TL 13010-EMC, dated 2013-02-18

Certificate:

SGS Baseefa:

Supplementary EC-Type Examination Certificate No. Baseefa13ATEX0296X/1 dated 2014-09-05.

Tests carried out

Applicable tests according to:

- Det Norske Veritas Standard for Certification No. 2.4, April 2006.
- EN 60079-29-1: 2008-07 - Explosive atmospheres. Gas detectors. Performance requirements of detectors for flammable gases

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE