DNV·GL

Certificate No:
TAA000011W

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gas Detector

with type designation(s)
Searchpoint: Optima Plus with optional Hart, Optima X, Optima Z

Issued to
Honeywell Analytics Ltd.
Poole, Dorset, United Kingdom

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

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

Issued at **Høvik** on **2017-02-09**
This Certificate is valid until **2021-12-31**.
DNV GL local station: **Southampton**

Approval Engineer: **Nils Jarem**

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.

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Job Id: **262.1-014465-4**
Certificate No: **TAA000011W**

Product description

Searchpoint Optima Plus with optional HART®:
designed for use in potentially hazardous areas where it provides hydrocarbon gas and vapor detection. Searchpoint Optima Plus with optional HART® uses the dual wavelength infrared absorption principle to detect hydrocarbon gases and vapours in various concentration ranges. Searchpoint Optima Plus with optional HART® 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.

All versions 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: 6V5

Searchpoint Optima X:
is a variant of Searchpoint Optima Plus with optional HART® exclusively for use in sampling systems. A fast speed of response is made possible by minimizing the volume of the sample cell.
Software Version: 6V5

Searchpoint Optima Z:
is a variant of Searchpoint Optima Plus with optional HART® optimized for the detection of the solvents ethanol, ethyl actate, propane and 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: 6V5

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems

Application/Limitation

Ex installations to be approved in each case according to DNV GL 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	
Equipment marking	Certificate No.
Ⓔx II 2GD Ex d op is IIC T* Gb Ex tb IIIC T* Db Where T* is: T86°C (Ta -40°C to +55°C) or: T96°C (Ta -40°C to +65°C)	Baseefa13ATEX0296X and Baseefa13ATEX0296X/1

Type Approval documentation

Tests carried out

Applicable tests according to:
- Class guideline DNVGL-CG-0339, November 2016.
- EN 60079-29-1: 2008-07 - Explosive atmospheres. Gas detectors. Performance requirements of detectors for flammable gases

Marking of product

The products to be marked with:
- manufacturer name
- model name
- serial number
- power supply ratings

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE