DNV·GL

Certificate No:
TAA00000C8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the CCTV System

with type designation(s)
HERNIS CCTV

Issued to
HERNIS Scan Systems AS
HIS, Norway

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

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

Location classes:

Temperature	**D,** **A for OK400, OK450L and H19MD,** **B for PS350 and HE400**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**C for camera stations only.** **Other equipment to be provided with required protection according to the Rules upon installation onboard.**

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2016-05-20**

for **DNV GL**

DNV GL local station: **Kristiansand S**

Approval Engineer: **Ståle Sneen**

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: **262.1-004051-5**
Certificate No: **TAA00000C8**

Product description

Closed Circuit Television (CCTV) system consisting of the following units:

Camera stations:
- EX270, EX270 HD IP
- EX286, EX286W, EX286 HD IP, EX286W HD IP
- EX291, EX291 HD IP
- S9, S9W, S9 HD IP, S9W HD IP
- Mini S-7
- PT70, PT70 HD IP
- PT12
- PT9, PT9W, PT9 HD IP, PT9W HD IP
- EX292, EX292W, EX292 HD IP, EX292W HD IP

Camera stations with W in the name have added wash/viper function and HD IP are versions with digital camera modules and IP protocol connection.

Control Panel OK450L
Pump Unit for Camera Station EX286W – EX286PMP
Power supply unit PS350
LCD Monitor H19MD
Keyboard OK400D
Video Matrix HE400
System node Hernis 05
Remote control card HSS05 Commux16
Alarm card HSS05 IO-32-8
Serial port card HSS05 Multicom
Ethernet card HSS05 Multicom w/Ethernet connector
Matrix card HSS05 Switch 8x8

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

Power supply unit P350 is to be installed with power supply filter Schaffner FN2010-10-06 or equivalent.

Ex installations to be approved in each case according to the 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.

Information on Ex-Certification received from manufacturer		
Equipment	Certified	Certificate No.
Camera Station EX286 EX286LT	Ⓔx II 2 G Ex de IIC T6 Gb or Ex d IIC T6 Gb - EX286: -20°C ≤ T_{amb} ≤ 60°C - EX286LT: -50°C ≤ T_{amb} ≤ 50°C	Presafe 15 ATEX 7413
Enclosure type EX291C/L/LED	Ⓔx II 2 G Ex d IIC T6/T4 Gb (EX291C/L) Ⓔx II 2 G Ex d op is IIC T4 Gb (EX291LED)	DNV-2003-OSL-ATEX-0013X
Pump Unit EX286 PMP	Ⓔx II 2 G EEx de IIC T6	DNV-2003-OSL-ATEX-0394
Camera Station EX270 dome	Ⓔx II 2 G Ex d IIB+H_2 T6 T_{amb}: -20°C to +45°C	DNV-2008-OSL-ATEX-39092X

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Information on Ex-Certification received from manufacturer		
Equipment	Certified	Certificate No.
Camera Station EX292(W) EX292WIFI	Ⓔx II 2 G Ex d IIB T6 Gb - EX292(W): -20°C ≤ T_{amb} ≤ 60°C) - EX292WIFI: -20°C ≤ T_{amb} ≤ 60°C)	Presafe 15 ATEX 6337X

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

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