

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Security/ Surveillance Camera**with type designation(s)
WISKA CCTV System IP

Issued to

WISKA Hoppmann GmbH
Kaltenkirchen, Germanyis 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.**

Temperature	A (PCs, Switch, Monitor); B*, D (Cameras)
Humidity	B
Vibration	A
EMC	B
Enclosure	A (PCs, Switch, Monitor); C, D (Cameras)

Issued at **Hamburg** on **2020-08-25**for **DNV GL**This Certificate is valid until **2024-08-22**.DNV GL local station: **Hamburg CMC**Approval Engineer: **Jens Dietrich**

Joannis Papanuskas
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.



Product description

CCTV System consisting of following components:

Cameras:

CH-S240/2030S, CH-S240/2030S/D200AS, CH-S240/2030S/D200AS/GY, CH-S240/2030S/D200AS/H:

- IP Outdoor camera, manual tilt, 30x optical zoom
- Stainless steel housing
- Degree of protection: IP68(2m,30min)
- Power supply 24VDC.

CH-S240/2030S/FL6, CH-S240/2030S/FL6/H, CH-SW240/2030S/FL6/P, CH-S240/2030S/FL6/P/H, CH-S240/2030S/FL6/P/STB, CH-S240/2030S/FL6/P/STB/H, CH-S240/2030S/FL6/STB, CH-S240/2030S/FL6/STB/H:

- IP Outdoor camera, electronic pan/tilt/preset, 30x optical zoom, wash/wipe function
- Stainless steel housing
- Degree of protection: IP68(2m,30min)
- Power supply 110...230VAC, 50...60Hz.

D100/42212/IP/PTZ/P, D100/42212/IP/PTZ/P/OM:

- IP Outdoor camera, electronic pan/tilt, 12x optical zoom
- Vertical hanging type
- Housing material: PBT/Polycarbonat
- Degree of protection IP66/IP68(2m,30min)
- Power supply: POE

D11/VC2MP/POE/IN*, D11/VC2MP/POE/OUT, D11/VC2MP/POE/IN/OM*, D11/VC2MP/POE/OUT/2,8MM, D11/VC2MP/POE/IN/OM/2,8MM*:

- IP Dome camera, fixed lens 2.8 or 4mm/70°, HDTV/POE
- Housing material: PBT/Polycarbonat
- Degree of protection: IP68(2m,30min)
- Digital zoom

* IN types listed above: Temperature Environmental Category B.

Connection Boxes:

COMBI® MAR1210/D11/IP/OUT

- Polypropylene housing, RAL7035, IP66/67

IBS2020/IP/FIX/EP, IBS2020/IP/FIX/L

- Connection box, stainless steel, IP67

WTC/IP/FIX/EP, WTC/IP/PTZ/EP, WTC/IP/PTZ/EP/RAL7000, WTC/IP/PTZ/P/EP:

- Connection box/wash water tank combo, stainless steel, 10l
- Degree of protection IP56/IP67
- Power supply 110...230VAC, 50...60Hz.

Network-PCs:

CLIENT4SHIP/MICRO-2/I7/256GB/SSD:

- Workstation with 256GB SSD, Micro-ATX
- CPU Intel i7
- Aluminium housing
- Operating system: Windows10/64bit
- RAM: DDR4/8 GByte
- 3 Monitor ports
- Ethernet: 1xGB-LAN/RJ45
- 4xUSB 3.0
- Power supply 100...240VAC, 50...60Hz.

COM4SHIP/MICRO-2/xIP/2TB:

- x: Number of licensed connected cameras (0, 4, 8, 16, 18, 24, 32, 36, 39 or 40)
- Server for 40 IP cameras with 2TB HDD, Micro-ATX
- CPU Intel i7
- Aluminium housing
- Operating system: Windows10/64bit
- RAM: DDR4/8 GByte
- 256GB SSD
- Ethernet: 1xGB-LAN/RJ45
- 4xUSB 3.0
- Monitor port(s)
- Power supply 100...240VAC, 50...60Hz.

Ethernet Switches:

SWITCH/24P/GBit/24POE/8POE+,4SFP/IN

- 24-port GBit, 24xPOE, 8xPOE+, 4xSFP, Desktop
- Managed
- Degree of protection IP20
- Power supply 230VAC, 50...60Hz

Monitors:

TFT24/HP/E243/Standard

- 24" TFT monitor
- Resolution 1920x1200
- Inputs: VGA, Display port, HDMI
- Brightness: 250cd/m2
- Degree of protection IP20
- Power supply 100-240VAC, 50...60Hz.

Application/Limitation

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.

Product certificate

If specified in the applicable DNV GL Rule set, the system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After certification the clause for software control will be put into force.

Software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV GL for evaluation and approval before implemented on board. Certification of modified functionality may be required for the particular vessel.

Approval conditions

1. The suitability for the use of the monitor on the navigating bridge with regard to its display features is to be checked for the respective application.
2. System failure alarm routing to an external system is not available and needs to be evaluated for the respective application.
3. Line filter FSS2-65-6/3 to be used for power supply of PC and Ethernet Switches
4. Equipment shall be mounted outside 5m surrounding area of the magnetic compass
5. Display cable USB-C to Display Port to be used.

6. For safety relevant applications client and server PCs require uninterruptible power supply (UPS).

Type Approval documentation

Data sheet CH-S240/2030S, dated 2020-03-19
Data sheet CH-S240/2030S/GY, dated 2020-03-19
Data sheet CH-S240/2030S/D200AS, dated 2019-03-22
Data sheet CH-S240/2030AS/D200AS/H, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/P, dated 2019-01-22
Data sheet CH-SW240/2030S/FL6/H, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/P/H, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/P/STB, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/P/STB/H, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/STB, dated 2020-03-19
Data sheet CH-SW240/2030S/FL6/STB/H, dated 2020-03-19
Data sheet CLIENT4SHIP/MICRO-2/I7/256GB/SSD, dated 2019-03-22
Data sheet COM4SHIP/MICRO-2/32IP/2TB, dated 2019-03-22
Data sheet COM4SHIP/MICRO-2/4IP/2TB, dated 2019-01-22
Data sheet COMBI® MAR1210/D11/IP/OUT, dated 2019-03-22
Data sheet D100/42212/IP/PTZ/P/0M, dated 2020-03-19
Data sheet D11/VC2MP/POE/OUT, dated 2019-01-22
Data sheet D11/VC2MP/POE/IN, dated 2020-03-19
Data sheet D11/VC2MP/POE/IN/0M, dated 2020-03-19
Data sheet D11/VC2MP/POE/IN/0M/2,8mm dated 2020-03-19
Data sheet D11/VC2MP/POE/OUT/2,8mm, dated 2020-03-19
Data sheet IBS2020/IP/FIX/EP, dated 2019-01-22
Data sheet IBS2020/IP/FIX/L, dated 2020-03-19
Data sheet SWITCH/24P/GBit/24POE/8POE+,4SFP/IN, dated 2019-03-22
Data sheet TFT24/HP/E243/Standard, dated 2019-03-22
Data sheet WTC/IP/PTZ/P/EP, dated 2019-01-22
Data sheet WTC/IP/PTZ, dated 2020-03-19
Data sheet WTC/IP/PTZ/EP, dated 2020-03-19
Data sheet WTC/IP/PTZ/EP/RAL7000, dated 2020-03-19.
EMC Report TÜV Nord, no. 19003-2-R01;
WISKA Umwelt Prüfprotokoll PP20190628-01;
paconsult Vibration Test Report, 19-11301, rev.1;
Wiring diagram WD-00-DI-206, rev.00;
DNVGL Performance Test CCTV System, Performance_CCTV_21-06-2019
TA Assessment Report, DNV GL Hamburg, dated 2019-06-21.

Tests carried out

Applicable tests according to DNV GL CG-0339, November 2016.

Marking of product

Maker, type designation, serial number.

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



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- 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