



ALPHATRON
Marine



AlphaCam

A complete line of cameras

alphatronmarine.com

Features

Good and comfortable visibility is essential for safety on the waterways and open seas. The AlphaCam AHD camera line is a complete line of different cameras which all offer Full HD (1080p) image. The line consists of fixed focus cameras, zoom- and dome cameras for the maritime environment onboard ships, reassuring the safety of crew, passengers and cargo. Several interfaces are developed to control the zoom and dome cameras and the robust and durable design ensures many years of problem free operation.



- Blind spot vision
- Gangway security
- Engine room monitoring
- Deck surveillance
- Sail monitoring
- Aft deck monitoring
- Rear vision
- Land based security

Each and every vessel has different camera needs and the AlphaCam AHD line allows for a very flexible configurable system, far beyond the typical requirements. In many situations these cameras can replace the existing on board CCTV system without the need for new cabling as the remote control- and video signal of the zoom and dome PTZ camera is transmitted over the coax cable. Naturally besides the cameras, our solution includes full (select, switch and control) interfacing capability, joysticks and push buttons to operate the CCTV environment onboard.



Camera / housing

Stainless steel

The fixed lens stainless steel camera is mounted in a watertight box and this “camera” box is fitted in a stainless steel housing. This watertight box, which houses the camera, can be mounted at different positions 0°/ 90°/ 180°/ 270° in the stainless steel housing. Even when the monitor is tilted 90 degrees, it can still shows proper playback. Due to the extremely small size of the AlphaCam AHD Mini cameras, installing is possible at virtually any location.

Polyurethane

For most fixed lens models we also offer a polyurethane version which has a completely molded housing. Due to the molded housing, it is not possible to rotate the camera relative to the housing. However, it makes this camera version with dust- and waterproof IP67 rating, extremely suitable for rough conditions at sea.





*Rule of thumb,
the smaller the millimeter range of the lens,
the greater the viewing angle.*

Lenses

A fixed lens has a certain angle which cannot be adjusted whereas with a zoom lens you can adjust the focal length which allows the magnification of the image. The range of the lens often ranges from 2.8 mm to 25 mm.

The AlphaCam series are available with both optical and digital zoom. With an optical zoom lens various lens parts move relative to each other. This results in the magnification of the image without, apart from the reduced light intensity, compromising or deteriorating the quality of the image. Digital zoom on the other hand is a process where the pixels of a digital image are stretched out, and the resulting picture is focusing on just one part of the perspective of the lens. This almost always results in a loss of quality.



The purpose of the camera usually determine the number of mm lens that is needed. A camera with a 2.8 mm lens has a wider viewing angle, this camera will give a broader picture on the monitor but provides less detail. A camera with an 8 mm lens has a smaller viewing angle, but gives a lot of details. This applies to both horizontal and vertical angles.

Infrared

Most fixed cameras has IR LEDs for use in situations with low light or during night time. With the former analogue cameras the brightness of the IR LEDs can be controlled externally to overcome white spot during night time. The new AlphaCam AHD cameras use their high quality sensors to capture images in full color in day view mode and when low light conditions occur, the camera automatically switches to night view mode in black and white, enhancing visibility during the periods of darkness.





Dome camera

Camera monitoring systems can play an important role in maintaining safety conditions and efficiency onboard ships. Next to that, extra visual coverage helps to keep a better eye on the ship, crew and surroundings.

The dome with 360° continuous rotating lens is available in a aluminium and stainless steel version, both are a durable solution resistant against corrosion and therefore perfectly suited for marine environment and commercial applications, both indoor and outside.



Stainless steel



Aluminium

Similar to the zoom camera, all control data is over video. With four preset camera positions, this camera is helpful when maneuvering and during ship crane or dredging applications. The dome camera is also available in a 90° tilted version, well suited for a portrait monitor.

		Lens	IR LEDs	Resolution (megapixel)
AlphaCam Dome Stainless steel*	NL1-003324	4,44-142,6	no	2.38
AlphaCam Dome Aluminium*	G-004675	4,8-57,6	no	2.38

*90° tilted versions available

Mini camera

The AlphaCam AHD Mini line are complete video cameras in a nitrogen filled IP67-sealed rugged housing intended for marine and commercial applications. Due to the small sizes, these camera's will hardly be noticed when mounted in e.g. gangways or in the rigging. An additional advantage of being small is the reduced impact of vibration and the lower risk of ropes getting tangled or the camera being knocked off.

The AlphaCam AHD Mini's are available in two main versions, stainless steel or polyurethane housing. Both versions have an 1/2.8" Sony CMOS Sensor with 2.1 Megapixel providing Full HD images. Additionally, we have both versions with mirrored image available.



AlphaCam mini Stainless steel	AlphaCam mini Polyurethane	Lens	View Angle (horizontal)	IR LEDs	Resolution (megapixel)
G-004656	G-005216	2,1	125°	no	2.1
G-004657*	G-004664*	2,8	111°	v	2.1
G-004658*	G-004665*	3,6	80°	v	2.1
G-004659*	G-004666*	6	53°	v	2.1
G-004660	G-005217	8	41°	v	2.1
G-004661	G-005218	12	26°	v	2.1
G-004662	G-005219	16	19°	v	2.1
G-004663	G-005220	25	12°	v	2.1

*mirrored versions available

Zoom camera

The remote control signals of the zoom camera are transmitted over coax cable, together with the video signal, so no need for extra wiring to enable zoom and focus. This makes it also possible that in many situations these cameras can replace the existing onboard CCTV system without the need for new cabling. The lens is chemically hardened, making it extremely strong and avoids problems with condensation or frost.

The zoom camera (and also mini and dome), captures images in full color and when low light conditions occur, the camera automatically switches to black and white, enhancing visibility during the periods of darkness.

AlphaCam Zoom Polyurethane	Lens	Camera box position	IR LEDs	Resolution (megapixel)
G-004674	4,44-142,6	90°	no	2.38
G-004667	4,44-142,6		no	2.38



With a zoom ratio of 16x digital and an amazing 32x optical, effective decisions can be made based upon the visual feedback from any remote location. With the many options that are available through the menu, such as backlight compensation, contrast enhancements, motion detection, day/night selection it is truly an extra set of eyes on the bridge or elsewhere required.

Single or multiple camera installation

A mix of interfaces, camera control with joystick and push buttons are available to support a single or multiple camera installation. From a simple interface for a single mini, zoom or dome camera to dedicated video selecting interface connecting multiple dome cameras. The video select interface has multiple BNC in/outputs for connecting to monitors or quads.

Single camera

If your CCTV installation only consists of one camera, a "single camera coax converter" can be used.



Multiple camera's

To keep the overview, dedicated easy to install MF control panels for the cameras are available with up to 16 pushbuttons in combination with a proportional joystick. We also have a 12 button version MF panel integrating a dedicated 2-axis joystick.



1. AlphaCam CCTV Switch & control interface

Controls the Video select interface and has connections with:

- Camera select buttons
- Pre-set position buttons
- Joystick

Up to 16 pushbuttons can be connected and a proportional joystick to this interface.

2. AlphaCam CCTV Video select interface

Is needed for installations with more than one zoom and/or dome camera. Up to 4 cameras can be connected with one CCTV Video select interface. If an installation consists of more than 4 camera's you need multiple CCTV Video select interfaces.

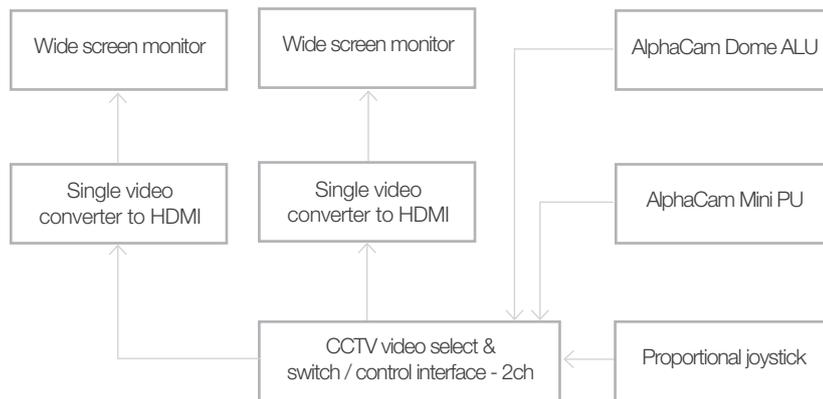
3. AlphaCam CCTV Video select and switch control interface

When the CCTV installation is quite small, one might be interested in a combined CCTV Video select and Switch & control interface. With these new products it is possible to make a compact 1, 2 or 4 channel installation.

In case of an installation with more cameras it is possible to show multiple images on one monitor by connecting a 4- or 9 channel AlphaQuad. On this monitor, it is possible to switch and select camera signals which can be showed on full screen or in a matrix to shown multiple images.



In case of an installation with a selection of cameras, it is possible to show these on multiple monitors.



A proportional joystick provides a simple and convenient way to add X-Y control (zoom-focus) to a zoom camera.



Camera selection

- AlphaCam Dome - Aluminium
- AlphaCam Dome - Aluminium 90° tilted
- AlphaCam Dome - Stainless steel
- AlphaCam mini - Stainless steel
- AlphaCam mini - Stainless steel, mirror
- AlphaCam mini - Polyurethane
- AlphaCam mini - Polyurethane, mirror
- AlphaCam Zoom
- AlphaCam Zoom 90° tilted

Options

- Connection cables
- CCTV video select interface
- CCTV switch and control interfaces
- Quad / HDD recorders

Tech Specs

Dome camera aluminium
Weight 2.3 kg (5.07 lbs)



Dome camera stainless steel
Weight 9.6 kg (21.16 lbs)



Mini camera stainless steel
Weight 0.6 kg (1.32 lbs)



Mini camera polyurethane
Weight 0.6 kg (1.32 lbs)



Zoom camera
Weight 2.6 kg (5.73 lbs)





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