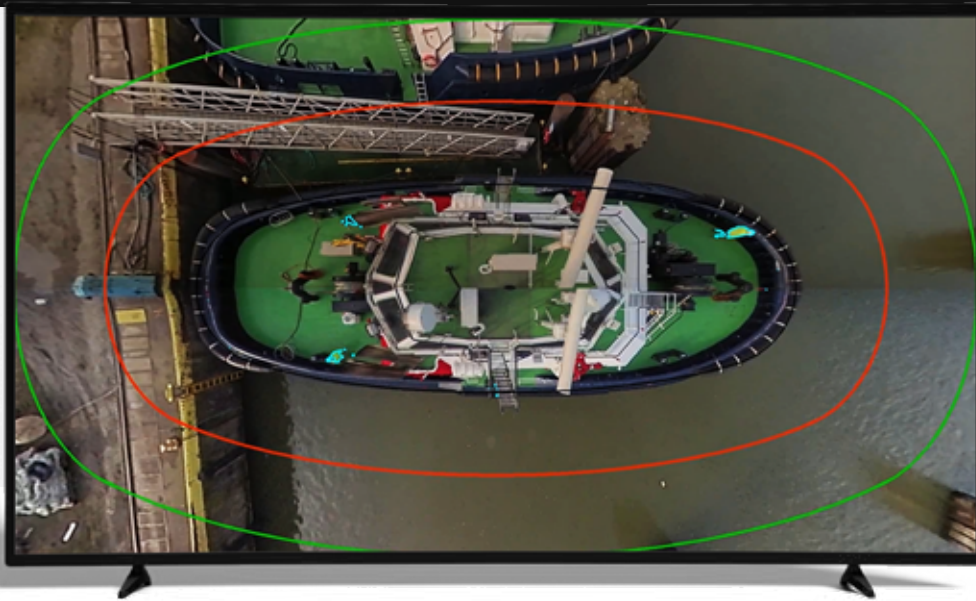




VISOR

TECHNICAL SHEET



VISOR BASIC

BIRD'S EYE VIEW

For Surround Vision



The Bird's eye View allows the captain to **observe the deck and its surrounding in real-time**, providing crucial information to make informed decisions.

DISTANCE LINES

For Maneuvering



With the distance lines overlay, the captain can **navigate precisely, avoid obstacles and dock safely**.

MOTION HIGHLIGHTING

And Mission Context



The Motion Highlighting technology helps the captain spot any movements from the crew clearly, ensuring **safe crew management** during critical operations

VISOR is an advanced **maritime vision and monitoring system** that **enhances safety and efficiency through 360° situational awareness**. Combining edge computing on board with secure cloud connectivity, VISOR empowers crews and fleet managers to monitor operations, replay missions and stay connected anywhere, anytime.

CONNECTED FROM DECK TO CLOUD

VISOR seamlessly integrates **onboard vision** with the **dotOcean Cloud**. This connection allows fleet operators to **monitor vessels remotely** and **access live data** from anywhere. Whether used for maneuvering, docking or fleet management, VISOR ensures **complete awareness on board and online**.



.Ocean Cloud
Basic

FLEET STATUS DASHBOARD



A control panel that **displays key VISOR system information**, like device status, for quick reference about the entire fleet in the **dotOcean cloud**

LIVE AIS DATA



Shows live AIS data of vessels via the Automatic Identification System (AIS)

EDGE AND CLOUD SW UPDATES



VISOR software updates that can be performed on board (edge) or via the cloud for system improvements or bug fixes.

OPERATIONAL OVERVIEW



Merges localisation and visual data for a complete operational overview of vessel dynamics in real time.



FEATURES VISOR SYSTEM

- **360° Situational Awareness**

Get a complete real-time overview of your vessel and surroundings. VISOR's fisheye cameras and bird's-eye view eliminate blind spots, helping captains maneuver safely even in confined or low-visibility conditions.

- **Edge-to-Cloud Connectivity**

VISOR processes video locally for ultra-low latency and syncs key data to the dotOcean Cloud for remote access, playback and updates.

- **Fleet Monitoring & Data Integration**

Combine live AIS, speed and positional data with synchronized visual feeds in one dashboard. Manage all VISOR-equipped vessels from the dotOcean Cloud.

- **Secure Recording & Replay**

All video streams are stored on board and can be accessed or replayed securely through the dotOcean Cloud. Review operations, analyze incidents or extract footage for training.

- **Motion Detection & Ship Highlighting**

Automatically detect and highlight movement on deck and nearby vessels. The system identifies crew activity, obstacles and potential hazards to support safer navigation and operations.

HISTORICAL AIS REPLAY



Allows the review of historical AIS data, showing a vessel's historical positions and speeds.

VIDEO REPLAY



Enables users to review recorded footage, allowing playback of specific moments or events for analysis review.



**UPGRADE YOUR
BASIC VISOR
SYSTEM**

VISOR ADVANCED

TINY PLANET VIEW



The Tiny Planet View provides a, **360° spherical perspective** of the vessel and its surroundings, assisting captains to better understand the overall situation with an all-encompassing view.

SHIP HIGHLIGHTING



The Ship Highlighting feature **automatically identifies and highlights nearby vessels**, ensuring that potential hazards are always visible, hence, reducing the risk of incidents and enhancing navigation safety.

HORIZON VIEW



With the Horizon View, the system offers an **expanded perspective of what lies ahead**, providing captains a clearer outlook on the horizon and improving their ability to navigate safely, even in challenging environments.

EXTRA CAMERAS



With the **integrated keypad** included in Visor Advanced, operators can add extra cameras around the vessel to provide additional viewpoints. This setup enables zooming in on key areas of the deck and enhancing situational awareness.



VISOR Advanced enhances onboard operations with powerful **analysis tools** and **extended visibility options**. VISOR cloud premium includes features like Historical AIS Replay and Video Replay enable captains to review missions, analyze incidents and improve operational planning.

The VISOR Advanced package includes a **dedicated keypad**, allowing operators to switch effortlessly between camera views and control key visual functions. The keypad can also be linked with existing onboard camera systems.

FROM DECK TO CLOUD – YOUR CONNECTED NAVIGATION SYSTEM

BASIC

ADVANCED

- | | |
|---|---|
| ✓ | ✓ |
| ✓ | ✓ |
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EDGE

- Bird's eye View
- 24/7 recordings
- onboard Video Storage
- Motion Highlighting
- Tiny Planet View
- Horizon View
- Ship Highlighting



AIDED NAVIGATION



Gain a complete 360° view of your surroundings and navigate safely with real-time visual guidance.

FLEET MONITORING



Stay connected to every vessel in your fleet through the dotOcean Cloud. Monitor live data, updates and performance from shore.

INCREASED EFFICIENCY



Reduce downtime and human error with automated monitoring and edge-to-cloud synchronization.

CLOUD

Fleet status Dashboard

Live AIS Data

Operational Overview

Edge & Cloud SW Updates

Historical AIS Replay

Video Replay

BASIC

PREMIUM

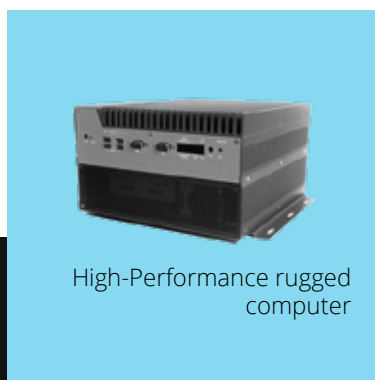


STORAGE CAPABILITIES

The VISOR system is a state-of-the-art solution that combines advanced hardware with powerful software to enhance maritime situational awareness. At the heart of the system are two fish eye cameras mounted high in the ship's mast, providing a 360° panoramic view of the vessel's surroundings. These cameras are strategically positioned to eliminate blind spots, ensuring optimal visibility in areas typically out of sight.

Onboard, a screen displays a Bird's eye View of the ship and its surroundings. This intuitive display enables captains to monitor critical areas and make swift, informed decisions. The system is powered by a high-performance onboard computer that processes the data from the fish eye cameras, seamlessly stitching the images together in real-time to create an accurate and responsive visual representation.

By integrating these components, the VISOR system significantly improves operational safety and navigation, making it an indispensable tool for modern maritime operations.



VISOR KIT CONTENT

Each VISOR installation includes everything needed for fast, reliable deployment on board:

- Two 12MP fisheye cameras with mounting plates
- High-performance rugged computer for real-time processing
- 27" IPS display with remote dimmer and wall mount
- Pre-installed VISOR software with dotOcean Cloud access
- Installation Manual

Options

Extend your VISOR system with advanced components and features:

- Additional IP cameras (2-4 MP)
- extra storage in order to record longer
- extra storage for data redundancy
- Keypad with VISOR advanced

STORAGE CAPABILITIES

The processed and fused video streams from all connected cameras are recorded continuously. For the two cameras, both the Bird's eye View and the original 360° view video streams are captured. When the pre-defined time limit is reached the "old" data will be overwritten

An overview of the minimum number of recording days based on the amount of onboard storage and the number of connected cameras is provided in the table below. It is possible to prevent specific video segments from being overwritten by exporting those portions of the recording.

Minimum recording days	4 TB Storage (standard)	8 TB Storage (Option)
2 fish eye cameras (2x12MP, 10fps)	10 days	20 days

i 4 TB (standard), 8 TB (Optional)
Redundant storage for highly critical data can be provided as an option.
10 GB monthly data limit for remote studio.
+ €25 / GB additional data

INTEGRATING EXISTING IP CAMERAS

Existing IP cameras can be seamlessly integrated into the Visor Vision System if they are connected to the vessel's network. Their video streams can be merged and integrated, offering a unified view on an existing bridge screen connected to the processing computer. These additional camera streams will also be recorded and can be accessed, viewed, and downloaded through the dotOcean Cloud web app.



SPECIFICATIONS

Cameras	2 x 12MP fish-eye camera
Power source	Power over Ethernet (PoE)
Impact resistance	IK10
Ingress protection	IP66
Operating Temperature	-40°C to +50°C
Display	IPS-LCD 24" or 27" diagonal
Outer dimensions	374 mm x 674 mm
Input voltage	9-33 VDC (230VAC adapter can be provided upon request)
Power consumption	25W
	5m wire to remote monitor dimmer
On-board computer	High-performance Rugged computer
Outer dimensions	Dimensions (WxHxD): 240 x 82 x 267 mm
Input voltage	12-48VDC (230VAC adapter can be provided upon request)
Power consumption	300W
Operating temperature	-40°C to +50°C
Storage	4 TB (default), 8 TB (option -1) Redundant storage for highly critical data can be provided as an option
dotOcean Cloud	
Monthly Data Limit	10 GB monthly data limit for remote video access
Optional	+ €25 / GB additional data

	Included	Not Included
CAMERA	• 2 x fish eye cameras • Standard mounting plate	• CAT 6A cables for cameras and data connection (to be supplied by client) • Bracket to fix the mounting plate to the mast
DISPLAY	• 27" or 24" Display • Remote dimmer • Wall mount bracket • Key pad (Advanced) with 2m USB cable	• Standard HDMI cable • Possible USB extension cable for keypad (max length 3m)
ONBOARD COMPUTER	• Computer • Wall mount or DIN rail Mount • DisplayPort to HDMI converter	• Ethernet cable with onboard network connected to the internet
DOTOCEAN CLOUD SOFTWARE	• Cloud-hosted platform allowing for secure access to the onboard recordings of all the vessels in your fleet	• The internet connection for the vessel
ADDITIONAL CAMERAS	• Software for recording visualize and download the additional camera streams	• A display on the bridge to which the video from these additional cameras can be streamed

INSTALLATION PROCEDURE

ONE - First vessel installation

As a reference, dotOcean provides complete installation support for the first vessel in the customer's fleet. This initial setup serves as both an example and training for future installations.

dotOcean supplies the full hardware set (cameras, display, onboard computer, and keypad).

The customer is responsible for:

- Providing and mounting the brackets or supports on the mast and bridge
- Supplying the required CAT 6A Ethernet cables for power and data connection
- Ensuring proper power availability on site.

A detailed technical drawing with required camera placement and mounting distances is included in the delivery package.

TWO - Installation on Additional Vessels

For subsequent vessels, the customer can perform the installation independently.

This includes:

- Mounting two cameras and connecting them to the **onboard computer**.
- Providing and connecting **CAT 6A Ethernet cables** for power and data for the camera.
- Connecting the **display and keypad** on the bridge to the onboard computer.

THREE - System Configuration and Online Setup

Once the hardware is installed, dotOcean provides **remote support** to activate the system and fine-tune parameters.

The customer supplies the vessel's **MMSI number** for registration and ensures internet access for the onboard computer.

dotOcean integrates the system into the **dotOcean Cloud**, providing secure remote access and video streaming for the fleet.

For additional IP or zoom cameras, customers can request integration through the dotOcean Cloud interface.

Visit our website for more information
www.visor.dotocean.eu





Go to our website and contact us for a demo!
dotocean.eu