NAVIOP ™

Open catalogue.
It's your project.

Marine automation & HMI

Open catalogue.
It's your project.

NAVIOP™

naviop.com

Official NAVIOP Dealer:

ACSONMARINE S.r.l.
via E. Barsanti, 10 47122 Forlì – Italy
tel. +39 0543 721918
fax +39 0543 792158

Exclusive distributor for The Netherlands:

HIFLEX AUTOMATISERINGSTECHNIEK B.V.
Wolweverstraat 22, 2984 CD Ridderkerk
Postbus 4070
2980 GB Ridderkerk
Phone +31 (0)180-46 60 04
Fax   +31 (0)180-44 23 55
info@hiflex.nl   www.hiflex.nl

Naviop has its facilities
and laboratories in Forlì, Italy,
in the marine district
of the northern Adriatic Sea.

Reliability is our first concern:
the quality of Naviop products
is tested to comply with the most
strict certifications.

CEI EN 61000-6-4
Electromagnetic compatibility (EMC)
Part 6-4: Emission standard for industrial environments

CEI EN 61000-6-2
Electromagnetic compatibility (EMC)
Part 6-2: Immunity for industrial environments

CENELEC EN 60945
"Maritime navigation and radio communication equipment and systems –
General requirements"

the team

We are the team to make the dreams come true: we and you. We have both the passion and the commitment to drive our project to success, in a simple yet quite efficient way.

the solutions

Units, systems and services, to fit your needs. Thanks to our skilled designers and architects, our systems are well-known in the market for their intuitive, original and user-friendly interface.

the catalogue

The perfect toolbox to build your project: best in class HMI screens and PLC units designed to be fully enhanced by the Naviop System. Pick & choose technical pages for the experienced engineer or ready-made solutions for selected tasks, it's up to you.

the team
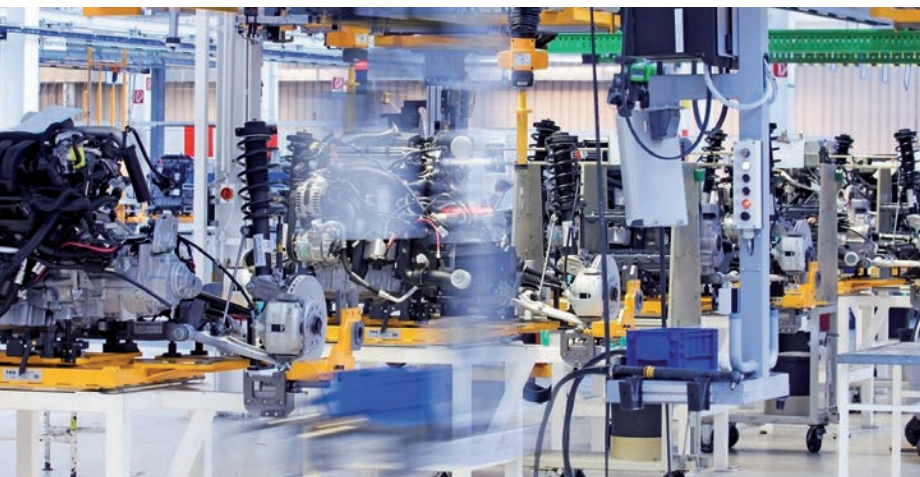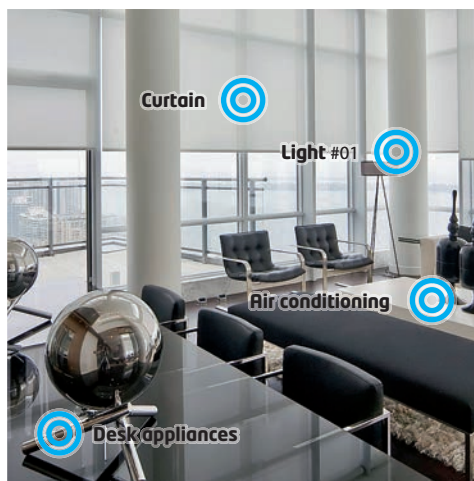
NAVIOP™

Naviop has its roots in the marine automation, with countless amazing projects.

Naviop expertise has been applied to various environments: marine, automotive, home & building automation. And now it's just waiting for your next, exciting project.

Curtain

Light #01

Air conditioning

Desk appliances

Naviop: a real R&D DNA

Naviop is a company of its own kind. Others talk about visions and missions, we simply say that we are proud to have deep rooted research and constant development in our DNA.
We crave for technical excellence and perfect engineering, alongside with a design oriented attitude: thanks to these qualities we always manage to cope with new challenges each time, within each project.
If you're thinking about your next automation project, keep it **open to new possibilities**, ask Naviop.

Technology, design, research & development, service: these are the four cardinal points always inspiring our philosophy. This DNA made Naviop the world leading brand in monitoring systems and integrated navigation.

Technology.
The Naviop brand is well-known for its state-of-the-art technology and pioneering solutions born of our wide experience in marine automation. We are the only Italian monitoring and control company which uses its own team to design and develop both software and hardware with constant attention to innovation, quality levels and product reliability.

Design.
We are aware of the importance of beauty on boats. That is why we study innovative, modern design lines and shapes with great care, choosing all raw materials with dedication. Not standardized shapes and lines, but unique and incomparable objects.

R&D.
Our engineers and developers are highly specialised and updated on new technologies, new communication systems, new research and discoveries in the field of software and materials. Innovation is the core of our company development. But we don't just do research: we aim at excellence.

Service.
Naviop After Sales service is always close to its customers to help them make good use of their products and preserve their value over time. Thanks to a close net of more than 70 service points worldwide, customers can always rely on skilled technicians able to solve technical problems in the shortest time possible at the lowest cost.

NAVIOP S.R.L Headquarters
via E. Barsanti, 10 47122 Forlì (FC)
ph. +39 0543 724980
fax +39 0543 751539
www.naviop.com
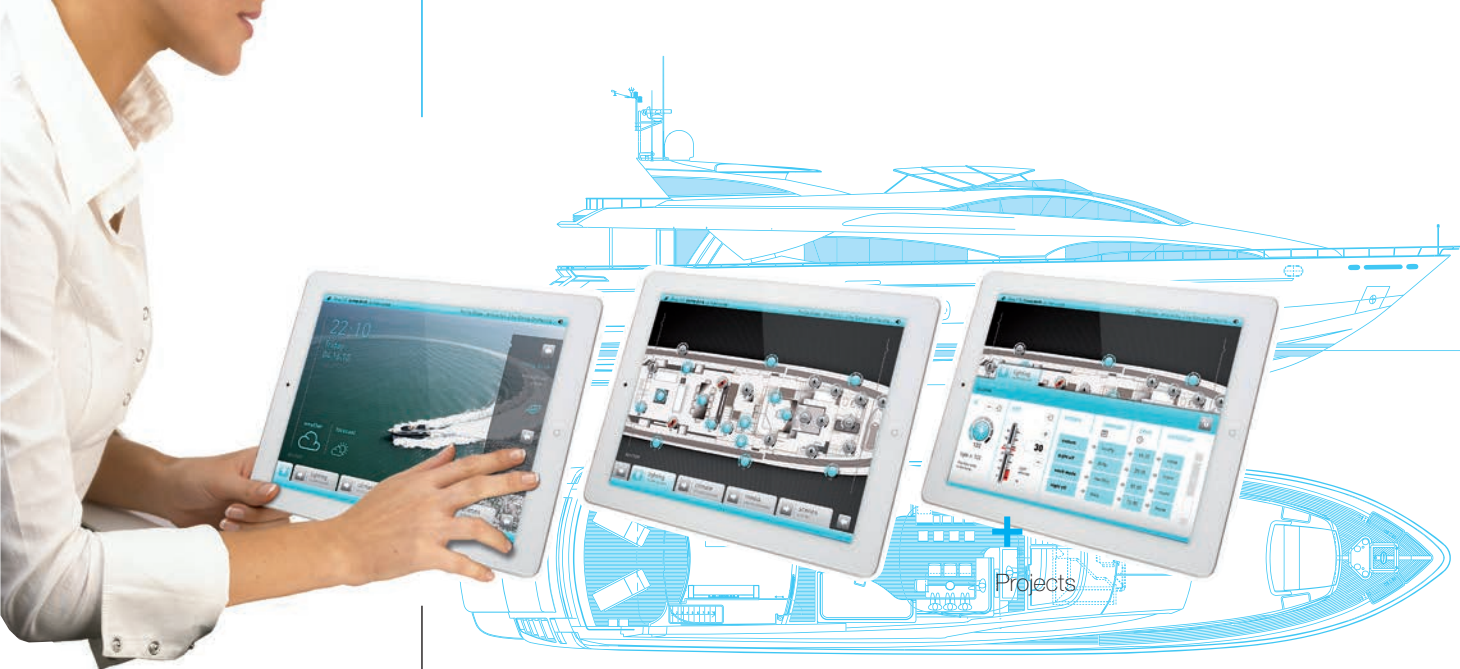
A subsystem designed to allow the guests to control light, air condition and multiple scenarios, connected to the main server via ipad. A custom project for the lucky owner of a 170 feet yacht.

+
Custom

Project
Custom

Designing and developing our hardware in-house, we have the chance to listen to our customers requests, suggestions and wishes and therefore we find ways to satisfy them. Thanks to our experience, over the years, we developed and manufactured unique products, created to meet specific needs.
Our engineers are accustomed to work in team with construction contractors to understand their needs and give reliable answers.

How to: If you are looking for a custom project, contact NAVIOP explaining your needs, ideas and wishes. Our R&D department will develop with you fully customized software and hardware solutions. Our marine solutions don't just include software development, but we also develop the graphics interface, making special and custom projects based on specific shipyard requests. Everything is completely tailor-made.

The hybrid propulsion is a hot new trend in marine technology: the most important international luxury yacht company asked Naviop to develop the touch screen interface for the **first hybrid yacht ever**: an exciting challenge which led to an intuitive yet very detailed HMI. This boat can now switch to electric propulsion and take its owners to protected areas usually forbidden to diesel navigation, such as marine parks, with no pollution at all.

Open possibilities

First of all you should understand what your needs are, which kind of customer you are. Be sure that Naviop has the experience, the know-how and the range of products to change your wishes in fully functional realities. You can count on us for new or refitted boats, you can take advantage of our catalogue of "closed" or "pick and choose" solutions.
But if you're designing something unique or completely different, then you have our attention!

Our natural ground: from needs yet to be answered to one of a kind exciting new products.

Project
New

Project
Retrofit

Over the years we developed and manufactured cutting-edge monitoring and control systems which features high performances and reliability, complying with all major standard certifications required in the marine market. Hardware and software already tested and verified: the customer can decide the controls and the information to show, by just choosing among our wide range of panels and monitoring pages.

How to: If you are building a new boat, our catalogue includes a wide range of hardware and software solutions that you can choose and mix to create the monitoring system which fits better with the design of your boat and the need of your customer. You can simply compose your system by choosing the shapes and materials of panels that you like the most and the monitoring pages which perform the most important controls through a very impressive, modern and user-friendly graphics interface.

Naviop can sport **a very wide range of marine successful case histories**, providing high-end monitoring and control systems to the best boat builders in the world.

Our new proposals dedicated to the world of retrofit. All sailing and motor boats which don't have any monitoring system can install a Naviop one and be easily updated with some of the most cutting edge solutions on the market. Our catalogue includes a wide range of "closed" fully scalable solutions allowing integration and monitoring on almost all on-board controls in one display. The display can be flush mounted into the dashboard with no protruding bezel, buttons or knobs, giving the boat a modern and sophisticated character through an elegant and essential design. Thanks to the ease of installation and use and to the high strength of a technology specifically designed for marine environment, our closed solutions are perfect for not-new boats, where the optimization of spaces and costs is crucial.

How to: decide which controls you want to perform on your boat and choose in our catalogue the solutions which fits better with your needs. Then… simply install it on your boat. The base kits are provided with brand new touch-screen operating panels and a set of pre-tested and verified monitoring pages which enable to perform several given controls with no need to make lots of activities on your boat.

Retrofitting is a growing market, regarding any kind of historic and beautiful boats. Naviop reliable "closed" solutions are designed to easy fulfill this need.
Below: Venice taxis using Naviop systems.

NAVIOP™

No matter what your project is about, if it's automation you might use some expertise from Naviop. A leader in high end solutions ranging from marine to automotive, from home & building to factory automation.

Naviop solutions allow an uncompromising level of quality and reliability, both for the UI design and technology features.
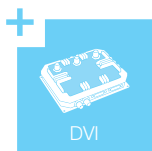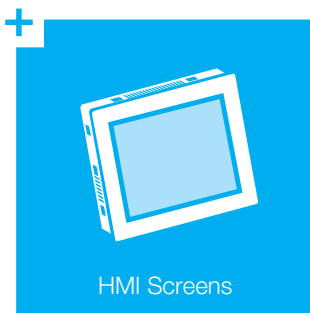
Open project: as a piece of cake

Naviop monitoring is an **open project**. You can count on our expertise to simply create bespoke solutions based on the flexible Naviop products. Simple and efficient solutions. Firstly choose the HMI screen in a wide range of devices, secondly create your bespoke solution adding applications, including PLC and components. Add a third ingredient: Naviop knowledge, always included.

Open solutions

Design your own automation and control project, to fit perfectly in marine, automotive or factory environments. Or in the next one.
Simple as a piece of cake: **follow three simple steps to create your open project.**

1 DVI & HMI Screens

2 Monitoring & Control

3 Knowledge*

HMI Screens

DVI

Monitoring & Control: Scalable applications

NPilot

Full Customer Care

Service   Full Remote

Choose your screen:

A complete series of **HMI screens and DVI units**, approved and designed for marine applications. These devices are tested to strictly meet all the requirements of ruggedness and reliability.
The complete range includes crystal, glass and polycarbonate screen panels.

The Sharp Video DVI unit is required for Crystal Series HMI screens for any generic HMI screen not made by Naviop.
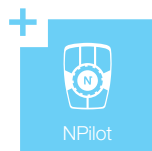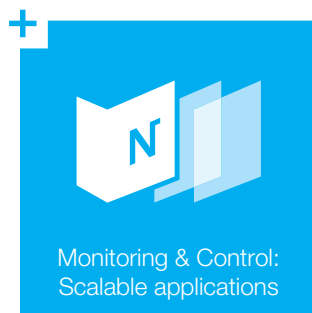
Add applications:

A wide range of **monitor and control applications** which can be chosen and combined one with another to meet each customer requirements (lights, air conditioning, tank levels, engines...).
The PLC units and needed components come bundled with each application.

Besides the touch interaction, you can add to your project the NPilot, a remote controller designed for Naviop.

Knowledge* elements:

Full customer care: Naviop ensures a personal treatment to customers and support them before, during and after sales.

Service: for assistance you can use one of Naviop 70 worldwide service points.

Full remote: enabling customers to remotely connect to the system via PC through Ethernet connection. This service allows a continuous realtime check by Naviop technicians.

Ready-made solutions

Choose the ready-made solutions to easily upgrade or refit existing systems.

Ready-made
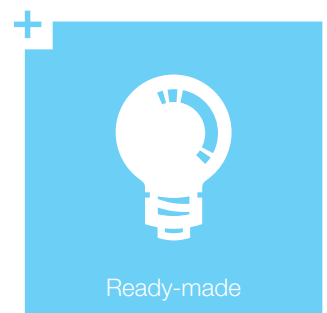
Choose your all-in-one solution: HMI screens, applications, knowledge*.

To perform single tasks or certain controls you can simply use our "closed" solutions already tested and successfull in many environments: fully scalable applications and crucial optimization of space and cost.

*

The plus of knowledge:
the renowned Naviop customer care
is always included in any open or
ready-made solution.

the
solutions

NAVIOP™

Thin shape, high brightness and modern design, to satisfy the most demanding and sophisticated customers.

1
DVI & HMI Screens

+
DVI
Sharp Video Unit

DVI

The Sharp Video DVI unit is the core of Naviop ultimate visualization system, based on N-Design (runtime) applications software. This device allows to show all Naviop monitor and control solutions on whichever kind and size of panel (displays, television, monitors, etc.). The unit is designed and approved specifically for use in marine environment and meets all the requirements of ruggedness and reliability. Provided with very powerful processor series, it can manage several input/output video channels and communications ports: DVI-I input, PAL input, analogical video signals, DVI-D output, ethernet and many more. The units are all equipped with preloaded graphic interface for the Naviop monitoring and control system.

Smart Crystal Series: strictly complying with technical requirements and a sleek design to please the eye.

A wide **open** view

Naviop developed full displays series made up of an integrated system able to fully manage and control all the functionalities. Brightness and modern design meet the needs of the most demanding and sophisticated customers. Approved and designed for marine applications and to meet all the requirements of ruggedness and reliability. Engineered with bonded glass touch screen to eliminate condensation, minimize glare, and provide superior viewing experience.

+
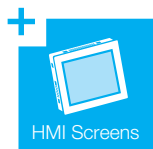
HMI Screens
Crystal, glass
and polycarbonate screens

HMI Screens

The **Smart Crystal Series** represents the top-class line of Naviop HMI solutions.
The series is made up of an integrated solution able to fully manage and control all the displays' functionalities. Thanks to their thin shapes, the brightness of the crystal and their modern design, the new Smart Crystal displays are able to meet the needs of the most demanding and sophisticated customers.

The whole series is approved and designed for marine applications and meets all requirements of ruggedness and reliability. The Smart Crystal series is optimal for strong sunlight or unfavorable light conditions and offers bright colours, wide viewing angles and excellent contrast.

Our **Genius Glass Series** is the latest evolution in the field of operating panels combining performance and advanced features with an excellent design. Engineered with bonded glass touch screen to eliminate condensation, minimize glare, and provide superior viewing experience. They are the ideal choice for HMI applications in whichever kind of environment. This Series has a high mechanical sturdiness and a high degree of protection (IP69K) and can be installed in any environment and conditions, even the most extreme ones which involve high levels of humidity, salty air, strong vibrations and high temperatures.

The Genius Glass Series operating panels combine state-of-the-art features with top performance in terms of very high brightness thanks to LED backlight and full vector graphic capabilities. Designed for harsh environments, the new displays have a true glass view.

The compact **Genius Series** operating panels complete the Naviop line with uncompromising low-cost polycarbonate products, integrated by an intelligent and compact PLC. The panels are designed and certified for use in marine environments. The high brightness and sharp contrast make them perfect even in adverse weather conditions.
The panels consist of a touch screen display integrated by a PLC which monitors and controls the data received from the connected devices, showing them directly on the display board. The built-in dual 100Mb Ethernet interfaces with switch function enhance the communication capability of these displays and make them the ideal choice also for small systems.
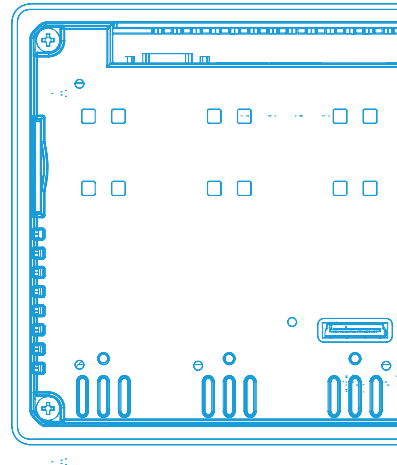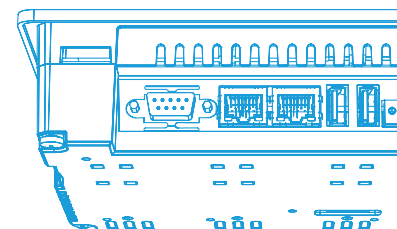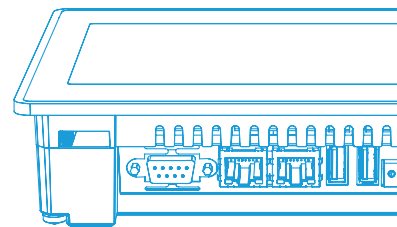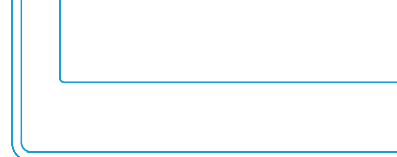
Genius Series:
uncompromising polycarbonate
devices: efficient and affordable.

The Naviop System relies on a user interface carefully laid to be clear and friendly, yet capable of a deep customization: dimensions, colours, material texture.
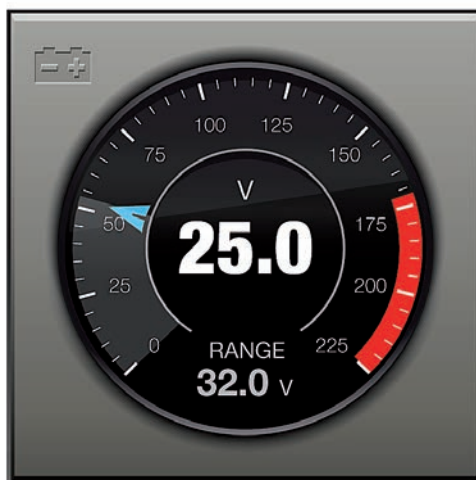
The control apps you want, on the screen you choose, with the hardware you need.

2

Monitoring & Control

Monitoring
Naviop System

Monitoring
& Control

Naviop System is the most highly versatile, flexible and marine oriented system that can be adaptable to any type of boat for maximum personalization, to meet very high comfort and security levels. Naviop monitoring system gives you the control of electrical and hydraulic handling systems, air conditioning/heating systems, propulsion units, water/levels treatment systems, on-board hydraulic systems and much more. The simple and clear applications are accessible browsing a sliding menu.

Naviop system lies upon a software internally developed by our skilled engineers and designers, constantly updated on new technologies, new protocols, new directions in interaction solutions.

Solutions in the **open** range

The Naviop System is designed to be the solution to a very **open range of monitoring and control needs**. It's a group of scalable applications to be freely assembled for your peculiar needs, available for any of our HMI screens, in portrait or landscape view.
You can rely on the final solution, 'cause we are in charge of providing the necessary hardware devices to deliver each application performance.
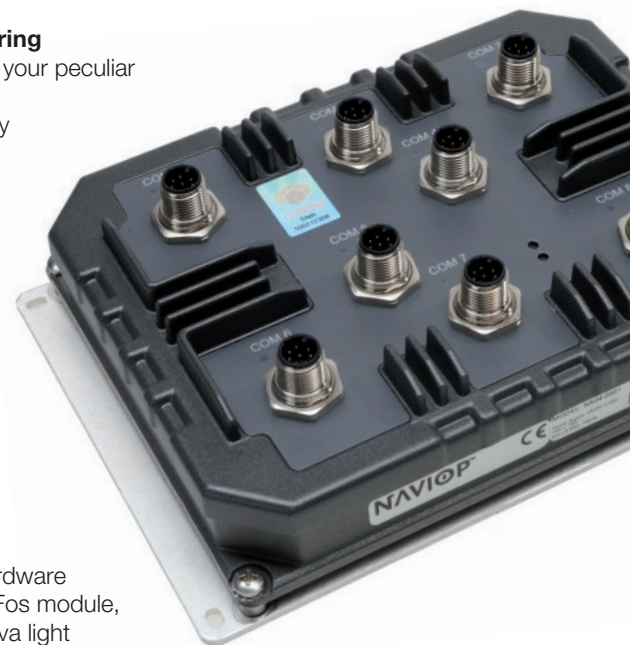
According to the controls that have to be performed on-board, each customer can easily configure and customize his own monitoring system choosing from a wide list of applications already tested and verified, to perform given controls (lights, air conditioning, engines and many more...).
According to the Naviop screen chosen for the system, each application can be ordered in two different visualizations: for both portrait and landscape view (7" and 13" wide screens), for landscape view only (4", 12", 15" screens).
The data shown on each page can be gathered from the field in three different ways:
- Communication protocols
- Analogue acquisition boards
- NMEA2000

The customer can also personalize the monitoring pages including the Shipyard's logo, the picture of the boat and choosing the background colour within a list of predifined ones.

Each page can also include hardware devices, such as T-BOX PLC, Fos module, CAN network components, Nova light boards, Egon boards, West weather control unit, ION I/O module, N-Pilot controller, cables and accessories.

These devices have been developed to work and interface with the most widespread protocols, based on NMEA 0183, NMEA 2000, Canbus 2.0B, J1939, Serial 232, 422, 485, Ethernet, Modbus TCP and many more, all of them widely tested and verified.
The units are specifically designed for use in marine environments. For example the T-BOX die cast aluminium enclosure, fully waterproof, has excellent thermal transfer properties.

Each solution comes bundled with its proper T-BOX PLC, to achieve the best performances and to guarantee reliability in any environment.

Each monitoring project can be customized to perform given controls, simply choosing the Naviop pages designed to fulfill specific tasks.

A skilled customer care,
worldwide service points and
a remote connection.

3

Knowledge

+ Full Care

Knowledge
Full Customer Care

Naviop gives top priority to customers before,
during and after sales, in order to constantly
enhance the level of satisfaction.
Naviop helps customers to correctly use
the products. It includes assistance by phone,
planning, installation, trouble shooting,
upgrading of each Naviop product. This service
is performed by Naviop Service Department,
which ensures a quick and focused reply
about questions or troubles.

Knowledge for **open** people

Naviop knowledge services come bundled with every Naviop elements.
Our commitment does not end when we supply your project, but follows you around the world.
It's the professional help you need to fully use the power of our products,
and the best way to enjoy your project hassle free, it's **knowledge for open people**.

Knowledge
Service

Service

For any problem occurring to all its products, Naviop can suggest the nearest place where to find help. There are more than 70 Naviop Service Points all over the world and they are all managed by skilled technical staff who is ready and able to quickly solve all your problems.
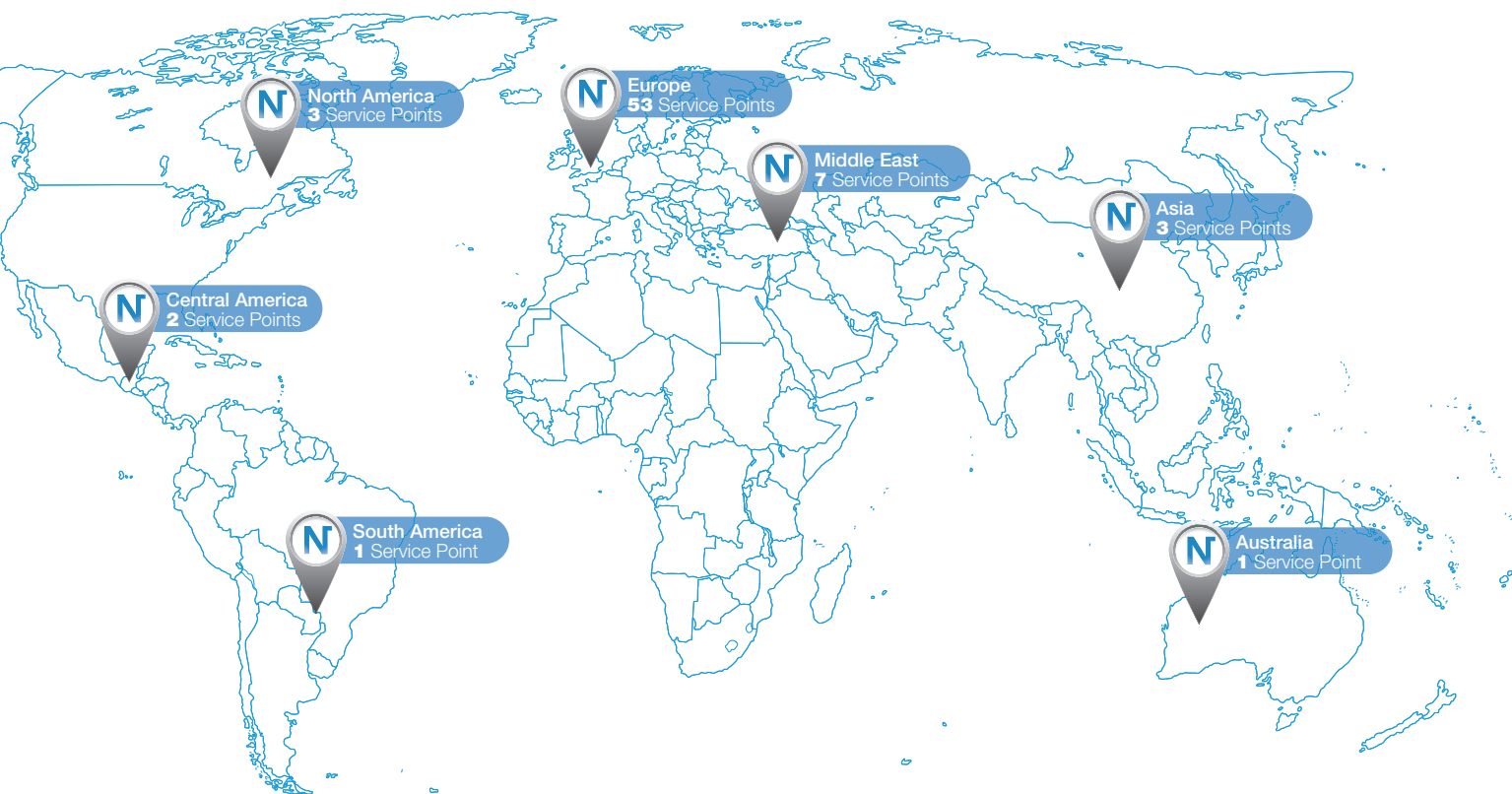
Knowledge
Full Remote

Full Remote

All devices are equipped with a VNC server enabling the customer to remotely connect to the panel via PC through Ethernet connection. This can be very useful if it is necessary to make a deep debug of the project, because the VNC connection provides secure remote access to Naviop panels from any location. The pc must be programmed with Naviop softwares, CodeSys with all updated libraries and the right N-Design release. Then our technician can enter the system and perform a runtime analisys of what is running.

Our people are the key factor in our success: designers, technicians and engineers collaborate to the best uncompromised result.

North America
3 Service Points

Europe
53 Service Points

Middle East
7 Service Points

Asia
3 Service Points

Central America
2 Service Points

South America
1 Service Point

Australia
1 Service Point

NAVIOP™

*

Naviop knowledge always included:
a skilled customer care, worldwide service
points and remote connection.

Ready-made solutions

All in one

SMS Alert:
able to manage the complete
surveillance and guarantee safety
even with nobody on-board.

Naviop Engines:
a system designed and built
to display all the engine's
operating conditions.

NRG:
Control of the best performances
on your vessel,
with an eye to consumption.

Open to simplicity

There are many ways to add something special to your project. That's possible thanks to the unique expertise of Naviop, our continue dedication in research and constant development, and thanks to the countless projects dealt with and made true by our experts.
All those qualities are in each ready-made solution: use them to **build your project**.

+
Ready-made

Solutions
Ready-made

These all-in-one solutions provide **HMI screens, applications and Naviop knowledge* in a single affordable bundle**.

All sailing and motor boats which don't have any monitoring system can install a Naviop one and be easily updated with some of the most cutting edge solutions on the market. Our catalogue includes a wide range of "closed" fully scalable solutions allowing integration and monitoring on almost all on-board controls: a single display to be flush mounted into the boat dashboard with no protruding bezel, buttons or knobs.
Thanks to the ease of installation and use and the high strength of a technology designed specifically for marine environment, our closed solutions are perfect for not-new boats, where the optimization of spaces and costs is crucial.

The standard kits are provided with brand new touch-screen operating panels and a set of pre-tested and verified monitoring pages which enable to perform several given controls with no need to make a lot of work on your boat.
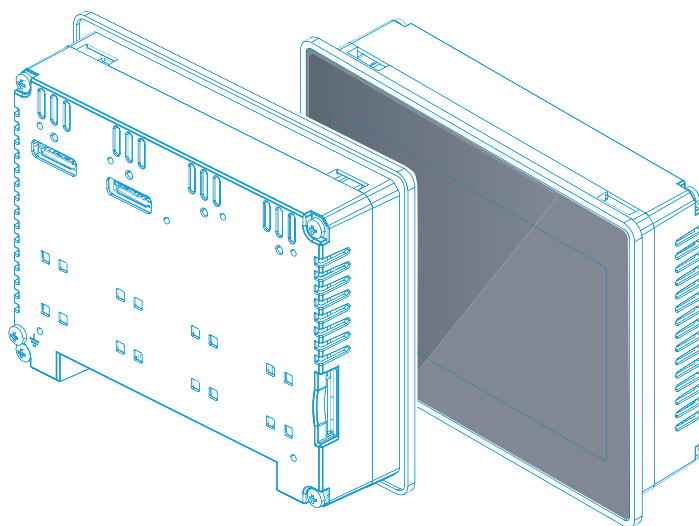
The ready-made Naviop solutions are made using the reliable Genius Series 7" screen.

Evolight:
a little yet revolutionary product, providing small boats with an essential monitoring and control solution.

the
catalogue

NAVIOP™

Smart Crystal 45:
a seamless crystal glass for the most
demanding and classy environments.

Every Smart Crystal HMI Screen
(15" Smart Crystal on the left) comes
bundled with the Sharp Video DVI unit,
to display the Naviop System at its best.

+

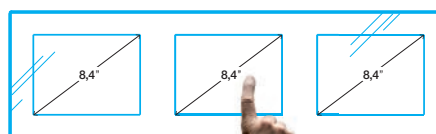HMI Screens

Smart Crystal Series

The Smart Crystal Series represents the
top-class line of Naviop HMI solutions.
It's **smart**, because it is **bundled with a
separate DVI unit** (Sharp Video) seamlessly
managing the displays' functionalities.
Its name refers to the thinness and brightness of
the crystal panel, a cleverly designed solution
able to meet the needs of the most demanding
and sophisticated customers.

It's fully approved for marine applications,
meeting all the requirements of ruggedness
and reliability (**IP65**).
Optimal for direct sunlight or unfavorable light
conditions, Smart Crystal HMI screens offer
bright colours, wide viewing angles and an
excellent contrast.

Features	Smart Crystal	Genius Glass	Genius
State-of-the-art Italian Design	✓	✓	✓
High brightness: 1500 cd/sqm		✓	
Portrait/landscape mode		✓	✓
Integrated NMEA2000 protocol		✓	✓
Integrated CHARTS solution		✓	✓
Double DVI input	✓		
Web Server functions	✓	✓	✓
Ready for NAVIOP Cables	✓	✓	✓
DNV certification		✓	✓
Worldwide assistance	✓	✓	✓

CE   DNV   N+

8,4"

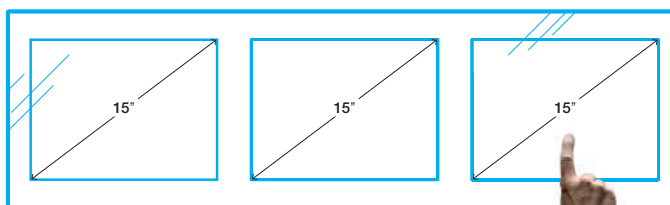8,4"   8,4"   8,4"

8,4"

Smart
Crystal 24

Smart
Crystal 8

15"

15"   15"   15"

15"
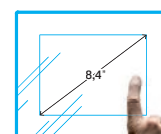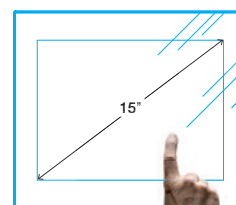
Smart
Crystal 45

Smart
Crystal 15

Reach. Touch. **Screen.**

Naviop provides a series of HMI screens bundled with DVI units, as well as a full range of operator panels with backmounted PLC. Top technical features and quality design are equally involved to perform the best user experience ever, for the monitoring needs of your project.

The user experience you're used to, in the best and the worst environments.
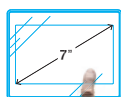
Genius Glass Series

The latest revolution in the field of operating panels combining performance and advanced features with an excellent design. The ideal choice for HMI applications, featuring wide high brightness **glass** displays and integrating an intelligent backmounted PLC. It's engineered with bonded glass touch screen panels to avoid condensation, minimize glare, and provide superior viewing experience. This Series mechanics is highly sturdy and well protected (**IP69K**), suitable for the most extreme environments, such as high levels of humidity and temperature, salty air and strong vibrations. These products combine state-of-the-art features with top performance thanks to LED backlight high brightness and full vector graphic capabilities.

Genius Series (Polycarbonate)

The compact Genius Series operating panels complete the Naviop line with uncompromising low-cost **polycarbonate** products. The chassis carries a **backmounted PLC** monitoring the data received from the connected devices, showing them on the display board. These panels are designed and certified for use in marine environments (**IP66**). The high brightness and sharp contrast make them perfect even in adverse weather conditions. The built-in dual 100Mb Ethernet interfaces with switch function enhance the communication capability, so these displays are the ideal choice even for small systems.

4,3" — Genius 4P

7" — Genius 7P / Genius Glass 7

12" — Genius 12P

13,3" — Genius 13P
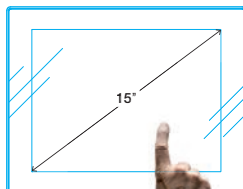
15" — Genius Glass 15 / Genius 15P

Genius 15 polycarbonate operator panel
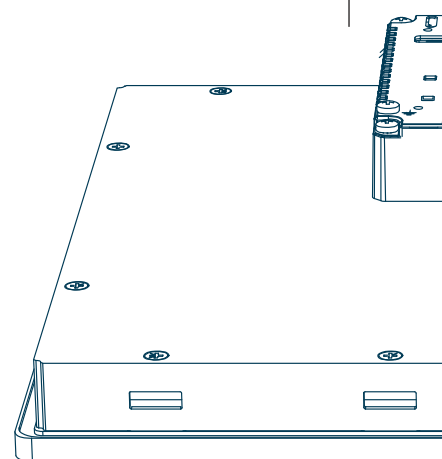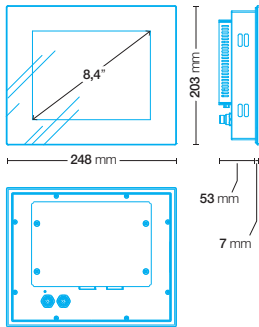
Smart Crystal 8

An embedded solution, ready for your data to flow. It is a true glass touch panel. Its clear 8,4" display is made up of an integrated solution able to fully manage and control all the displays' functionalities.

Display

Type:	TFT
Resolution:	640 x 480 pixel
Active display area:	8.4" diagonal
Colors:	64K
Backlight:	CCFL
Brightness:	600 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive
User LEDs:	1 (rear side)
OSD:	Yes (3)
Power:	ON/OFF button

Interfaces

USB Host port:	1 2.0 version
USB Device port:	1 2.0 version
DVI ports:	1 LVDS single link
	1 DVI-I single link
	(Max. SXGA@60Hz
	1280 x 1024)
PAL/NTSC ports:	2

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 0,6A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-10 ÷ +55°C
	(vertical mounting)
Storage temp.:	-30°C ÷ +85°C
Operative and	
storage humidity:	5 ÷ 85% RH
	(not condensing)
Protection class:	IP65 (front panel)

Dimensions

Faceplate (LxH):	248 x 203 mm
Cutout:	234 x 189 mm
Mounting depth (D+T):	53 + 7 mm
(without cables, +1 mm with gaskets)	
Weight:	2,6 Kg

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories	
Supply M12/5 poles F radial cable	C-23723
Y M12/8 poles radial 2mt USB cable	C-24437
DVI cable	C-DVI2M
Ethernet int. M12/8 poles F radial cable	C-22227
T-BOX PLC unit	N-NA04-0002

Smart Crystal 15

The real cutting-edge brilliant panel. It is a true glass touch panel. Its clear 15" display is characterised by high brightness screen technology for a superior viewing experience.

Display

Type:	TFT
Resolution:	1024 x 768 pixel
Active display area:	15" diagonal
Colors:	64K
Backlight:	CCFL
Brightness:	1000 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive
User LEDs:	1 (rear side)
OSD:	3 (front side)
Power:	ON/OFF button

Interfaces

USB Host port:	1 2.0 version
USB Device port:	1 2.0 version
DVI ports:	1 LVDS single link
	1 DVI-I single link
	(Max. SXGA@60Hz
	1280 x 1024)
PAL/NTSC ports:	2

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 1,5A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-10 ÷ +55°C
	(vertical mounting)
Storage temp.:	-30°C ÷ +85°C
Operative and	
storage humidity:	5 ÷ 85% RH
	(not condensing)
Protection class:	IP65 (front panel)

Dimensions

Faceplate (LxH):	380 x 322 mm
Cutout:	366 x 308 mm
Mounting depth (D+T):	53 + 7 mm
(without cables, +1 mm with gaskets)	
Weight:	6,5 Kg

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories	
Supply M12/5 poles F radial cable	C-23723
Y M12/8 poles radial 2mt USB cable	C-24437
DVI cable	C-DVI2M
Ethernet int. M12/8 poles F radial cable	C-22227
T-BOX PLC unit	N-NA04-0002

Smart Crystal 24

Three crystal panels in one. Three true glass seamless touch 8,4" clear panels with high brightness screen technology.
A perfect combination with the NAVIOP monitoring system.

Display

Type:	TFT
Resolution:	640 x 480 pixel
Active display area:	8.4" diagonal
Colors:	64K
Backlight:	CCFL
Brightness:	600 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive
User LEDs:	3 (rear side)
OSD:	3 (each display)
ON/OFF button:	1 (each display)

Interfaces

USB Host port:	3 2.0 version
USB Device port:	3 2.0 version
DVI ports:	5 LVDS single link
	1 DVI-I single link
	(Max. SXGA@60Hz
	1280 x 1024)
PAL/NTSC ports:	2

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 1,8A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-10 ÷ +55°C
	(vertical mounting)
Storage temp.:	-30°C ÷ +85°C
Operative and	
storage humidity:	5 ÷ 85% RH
	(not condensing)
Protection class:	IP65 (front panel)

Dimensions

Faceplate (LxH):	706 x 203 mm
Cutout:	691 x 188 mm
Mounting depth (D+T):	53 + 7 mm
(without cables, +1 mm with gaskets)	
Weight:	7,8 Kg

203 mm
8,4"
706 mm
53 mm
7 mm
203 mm
706 mm

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories	
Supply M12/5 poles F radial cable	C-23723
Y M12/8 poles radial 2mt USB cable	C-24437
DVI cable	C-DVI2M
Ethernet int. M12/8 poles F radial cable	C-22227
SHARP VIDEO graphic unit	N-NA20

N+™ CE

Smart Crystal 45

The all-star luxury solution. Three true glass seamless touch 15" clear panels featuring bright colours, wide viewing angles and excellent contrast. A perfect combination with the NAVIOP monitoring system.

Display

Type:	TFT
Resolution:	1024 x 768 pixel
Active display area:	15" diagonal
Colors:	64K
Backlight:	CCFL
Brightness:	1000 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive
User LEDs:	3 (rear side)
OSD:	3 (each display)
ON/OFF button:	1 (each display)

Interfaces

USB Host port:	3 2.0 version
USB Device port:	3 2.0 version
DVI ports:	5 LVDS single link
	1 DVI-I single link
	(Max. SXGA@60Hz
	1280 x 1024)
PAL/NTSC ports:	2

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 4,5A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-10 ÷ +55°C
	(vertical mounting)
Storage temp.:	-30°C ÷ +85°C
Operative and	
storage humidity:	5 ÷ 85% RH
	(not condensing)
Protection class:	IP65 (front panel)

Dimensions

Faceplate (LxH):	1102 x 322 mm
Cutout:	1088 x 308 mm
Mounting depth (D+T):	59,5 + 7 mm
(without cables, +1 mm with gaskets)	
Weight:	19,5 Kg

322 mm
15"
1102 mm
53 mm
7 mm
322 mm
1102 mm

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories	
Supply M12/5 poles F radial cable	C-23723
Y M12/8 poles radial 2mt USB cable	C-24437
DVI cable	C-DVI2M
Ethernet int. M12/8 poles F radial cable	C-22227
SHARP VIDEO graphic unit	N-NA20

N+™ CE

Genius 7G

Top performance with oustanding design. A high brightness 7" TFT widescreen (16:9) glass display with LED backlight and Anti-Reflective glass surface treatment. NMEA2000 and Naviop Charts embedded.

Display

Type:	TFT
Resolution:	800 x 480 pixel
Active display area:	7" diagonal
Colors:	64K
Backlight:	White LED
Brightness:	400 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive

Interfaces

USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 RS232/422/485 (sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 0,7A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-20 ÷ +60°C (vertical mounting)
Storage temp.:	-40°C ÷ +85°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP69K (front)

Dimensions

Faceplate (LxH):	187 x 147 mm
Cutout:	176 x 136 mm
Mounting depth (D+T):	47 + 8 mm
(without cables, +1 mm with gaskets)	
Weight:	1,0 Kg

Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories

Headed drop can	
DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

Genius 15G

Brighter, harder and wider. A high bright 15" TFT glass display with a true glass touch screen with Anti-Reflective glass surface treatment for an excellent colour view in the daylight.

Display

Type:	TFT
Resolution:	1024 x 768 pixel
Actine display area:	15" diagonal
Colors:	64K
Backlight:	White LED
Brightness:	1500 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	True glass
Touch screen:	Projective capacitive

Interfaces

USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 RS232/422/485 (sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings

Power supply (nom):	24Vdc (9-32 Vdc)
Current consumption:	max 2,0A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-20 ÷ +60°C (vertical mounting)
Storage temp.:	-40°C ÷ +85°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP69K (front)

Dimensions

Faceplate (LxH):	392 x 307 mm
Cutout:	381 x 296 mm
Mounting depth (D+T):	60 + 8 mm
(without cables, +1 mm with gaskets)	
Weight:	4,0 Kg

Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories

Headed drop can	
DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

Genius 4P

The no-compromise low-cost product. A 4.3" TFT widescreen (16:9) display with LED backlight and polycarbonate touch screen display.The built-in dual 100Mb Ethernet interfaces enhance its communication capability for easy integration with small systems.

Display

Type:	TFT
Resolution:	480 x 272 pixel
Active display area:	4.3" diagonal
Colors:	64K
Backlight:	LED
Brightness:	150 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	polycarbonate
Touch screen:	Analog resistive
User LEDs:	1 (dual color)

Interfaces

USB Host port:	1 2.0 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 (RS232/422/485, sw configurable)
Expansion slot:	1 optional plugin
Memory card:	1 SD card slot

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 0,55A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	0 ÷ +50°C (vertical mounting)
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP66 (front panel) IP20 (rear panel)

Dimensions

Faceplate (LxH):	147 x 107 mm
Cutout:	136 x 96 mm
Mounting depth (D+T):	52 + 4 mm
(without cables, +1 mm with gaskets)	
Weight:	1,0 Kg

Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories

Headed drop can	
DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

4,3"
147 mm
107 mm
52 mm
4 mm

Genius 7P

State-of-the-art features and oustanding design. A high bright 7" TFT widescreen (16:9) display with LED backlight. The new display has a polycarbonate touch screen which makes it perfect for any application.

Display

Type:	TFT
Resolution:	800 x 480 pixel
Active display area:	7" diagonal
Colors:	64K
Backlight:	LED
Brightness:	300 cd/m2 typ.
Dimming:	Yes

Front panel

Design:	polycarbonate
Touch screen:	Analog resistive
User LEDs:	1 (dual color)

Interfaces

USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 (RS232/422/485, sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings

Power supply (nom):	9-32 Vdc
Current consumption:	max 0,7A @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	0 ÷ +50°C (vertical mounting)
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP66 (front panel) IP20 (rear panel)

Dimensions

Faceplate (LxH):	187 x 147 mm
Cutout:	176 x 136 mm
Mounting depth (D+T):	47 + 4 mm
(without cables, +1 mm with gaskets)	
Weight:	1,0 Kg

Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories

Headed drop can	
DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

7"
187 mm
147 mm
47 mm
4 mm

Genius 12P

Code N-GENIUS12P

The right dimensions for the right applications. Designed for harsh environments, it features a high bright 12.1" TFT polycarbonate display with LED backlight and full vector graphic capabilities. The perfect solution for any sailing condition.

Display
Type:	TFT
Resolution:	800 x 600 pixel
Active display area:	12,1" diagonal
Colors:	64K
Backlight:	LED
Brightness:	300 cd/m2 typ.
Dimming:	Yes

Front panel
Design:	polycarbonate
Touch screen:	Analog resistive
User LEDs:	1 (dual color)

Interfaces
USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 (RS232/422/485, sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings
Power supply (nom):	9-32 Vdc
Current consumption:	max 1A @24V

Fuse:	Automatic

Environmental conditions
Operational temp.:	0 ÷ +50°C (vertical mounting)
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP66 (front panel) IP20 (rear panel)

Dimensions
Faceplate (LxH):	336 x 267 mm
Cutout:	326 x 256 mm
Mounting depth (D+T):	56 + 4 mm (without cables, +1 mm with gaskets)
Weight:	2,8 Kg

Open features
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories
Headed drop can DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

Genius 13P

Code N-GENIUS13P

As many data as you wish in a twinkling. The high-performance 13.3" touchscreen display is solid and elegant with its die-cast housing. It features bright colours, wide viewing angles and excellent contrast.

Display
Type:	TFT
Resolution:	1280 x 800 pixel
Active display area:	13.3" diagonal
Colors:	64K
Backlight:	LED
Brightness:	300 cd/m2 typ.
Dimming:	Yes

Front panel
Design:	polycarbonate
Touch screen:	Analog resistive
User LEDs:	1 (dual color)

Interfaces
USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 (RS232/422/485, sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings
Power supply (nom):	9-32 Vdc

Current consumption:	max 1,2A @24V
Fuse:	Automatic

Environmental conditions
Operational temp.:	0 ÷ +50°C (vertical mounting)
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP66 (front panel) IP20 (rear panel)

Dimensions
Faceplate (LxH):	336 x 267 mm
Cutout:	326 x 256 mm
Mounting depth (D+T):	56 + 4 mm (without cables, +1 mm with gaskets)
Weight:	2,8 Kg

Open features
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories
Headed drop can DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

Genius 15P

All your system in one touch High-performance 15" polycarbonate touchscreen display with fully dimmable LED backlight. Solid and elegant with die-cast housing, it features top performance and cutting edge design.

Display
Type:	TFT
Resolution:	1024 x 768 pixel
Active display area:	15" diagonal
Colors:	64K
Backlight:	LED
Brightness:	300 cd/m2 typ.
Dimming:	Yes

Front panel
Design:	polycarbonate
Touch screen:	Analog resistive
User LEDs:	1 (dual color)

Interfaces
USB Host port:	2 2.0/1.1 version
Ethernet port:	2 10/100 Mbit (integr. switch)
Serial port:	1 (RS232/422/485, sw configurable)
Expansion slot:	2 optional plugin
Memory card:	1 SD card slot

Ratings
Power supply (nom):	9-32 Vdc
Current consumption:	max 1,4A @24V
Fuse:	Automatic

Environmental conditions
Operational temp.:	0 ÷ +50°C (vertical mounting)
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP66 (front panel) IP20 (rear panel)

Dimensions
Faceplate (LxH):	392 x 307 mm
Cutout:	381 x 296 mm
Mounting depth (D+T):	60 + 4 mm
(without cables, +1 mm with gaskets)	
Weight:	3,5 Kg

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Accessories	
Headed drop can DB9 F cable	C-26515
Ethernet FL CAT6 patch cable	
10m	C-22248
15m	C-22209
20m	C-22210
Can interface	N-FOS01

15°
307 mm
392 mm
60 mm
4 mm

NAVIOP™

Software and hardware
are designed to be a solid couple,
to deliver strength and usability.

Any Smart Crystal HMI Screen
(15" Smart Crystal on the left) comes
bundled with the Sharp Video DVI unit,
in order to to display the Naviop
System at it's best.

+

DVI & Programmable logic controllers

Sharp Video

Sharp Video is the ultimate visualization system based on **WindowsCE** 6.0 R2 and **N-Design** (runtime) application software. The unit shows all Naviop monitoring and control systems on any kind and size of panel (displays, televisions, monitors…). It's purposely designed for marine environments, to meet needed requirements of ruggedness and reliability. Powerful processors can manage several input/output video channels and communication ports: DVI-I input, PAL input, analogic video signals, DVI-D output, Ethernet and much more.

It comes equipped with pre-loaded graphics interface for the Naviop monitoring and control system.

DVI & PLC. Stuff to get things run.

Freedom to visualize and freedom to communicate: Naviop DVI and PLC are our special boxes
to get the things run well in your project.

T-BOX

The T-BOX is born of our experience in
protocol management: the best solution to
safely dialogue with all on-board instruments.
It's developed to interface with the most
widespread protocols, based on **NMEA 0183**,
NMEA 2000, **Canbus 2.0B**, **J1939**, **Serial
232**, **422**, **485**, **Ethernet**, **Modbus TCP**
and many more which are all widely tested
and verified.
This PLC unit is specifically designed for marine
environments: the die cast aluminium
enclosure, fully waterproof (**IP67**), has excellent
thermal transfer properties.
You can have powerful and intuitive
programming with the CoDeSys development
tool based on IEC 61131-3, you can use
several functionalities, just like data acquisition
and transfer, data log and black box, alarms
management and history and web server.

Fos Module

The all-in-one CAN interface: communication
modules designed to allow the Naviop operator
panels (Genius Glass Series and Genius Series)
to easily connect to CAN network. Computing
power to run CoDeSys™, a fully NMEA2000
software programmable communication port
and so on.

The main marine protocols are tested
and available through the ports of the
Programmable Logic Controllers.

SERIAL

Asea AC300	UDM35	Quick
Veco Climma	Eltek	Masterwall
Condaria	Delf	Toshiba
Cantalupi	IME	Humphree
Yachtica	Gavazzi	Whisperpower

ETHERNET

Autronica

CAN

Cummins QSB5.9
Hyundai S250S
Kohler
MAN 1800V8
Marinair
MTU
Onan
Speich
J1939
Webasto
Caterpillar

Sharp Video

SHARP VIDEO unit is the core of SMART CRYSTAL display families. It can be connected to whichever kind of video device (Tv, PC, display) allowing to show all your data.

Open features	
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	

Memory

Memory:	128MByte
User Memory:	128MByte Flash
NVRAM:	32KByte FRAM

Interfaces

USB Host port:	1 2.0 version
USB Device port:	1 2.0 version
Ethernet port:	1 10/100Mbit
DVI-I input:	1 1.0 single ink
(Max. Res. SXGA 1280 x 1024 @60Hz)	
DVI-D output:	1 1.0 single link
(Max. Res. SXGA 1280 x 1024 @60Hz)	
PAL/NTCS:	2 camera inputs

Controller

CPU:	High performance RISC @600MHz

Ratings

Power supply (nom):	9-32 Vdc
Power consumption:	max 25W @24V
Fuse:	Automatic

Environmental conditions

Operational temp.:	-10 ÷ 55°C
Storage temp.:	-30°C ÷ +85°C
Operative and storage humidity:	
	5 ÷ 85% RH (not condensing)
Protection class:	IP20 (I/O video interfaces)
	IP65 (supply and communication connectors)

Dimensions

Faceplate (LxH):	148 x 172 mm
Depth (D):	51,3 mm
Weight:	0,75 Kg

Housing

Housing type:	Aluminium

Accessories	
Supply M12/5 poles	
M radial cable	C-23723
Ethernet int. M12/8 poles	
F radial cable	C-22227
DVI cable	C-DVI2M

N⁺ CE

148 mm
132 mm
172 mm
45 mm
51 mm
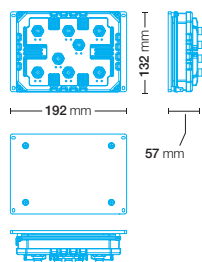
T-Box

Designed for marine and harsh environments applications, the product can support the most widely used communication standards to interface with almost all board systems. Powerful and intuitive programming with the CoDeSys development tool, it allows customers to configure and manage it by themselves

Memory
Flash Disk:	512 MByte
DDRAM Memory:	128 MByte

Interfaces
Isolated, sw configurable:	3 serial ports
CAN:	4 CAN 2.0
Ethernet:	1 10/100 Mbit
Connectors:	M12, 8 contacts

Controller
CPU:	MIPS @200MHz

Functionality
Dual driver:	Yes
Data acquisition:	Yes
Trends:	Yes
Recipe Memory:	32 KByte
Alarms:	1024
Password:	Yes
HW RTC:	Yes, with battery backup
Battery:	Vanadium-Lithium rechargeable, not user replaceable

Ratings
Power supply (nom):	18-32 Vdc
Current consumption:	max 1A @24V
Fuse:	Automatic

Environmental conditions
Operational temp.:	0 ÷ +50°C
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP65 (front panel) IP66 (rear)

Dimensions
Faceplate (LxH):	192 x 132 mm
Cutout:	182 x 120 mm
Mounting depth (D):	57 mm
Weight:	1,9 Kg

132 mm
192 mm
57 mm

Open features
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	✓

Accessories
Headed CAN M12-8 poles	
F radial 0.5m drop	C-22201
F radial 2m drop	C-20222
Supply M12/8 poles	
F radial cable	C-21589
Ethernet int. M12/8 poles	
F radial cable	C-22227
RS232/485 serial M12-8 poles F radial cable	C-20663
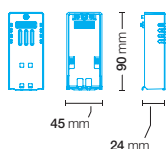
Fos 01

FOS 01 is an 'all in one' CAN interface. A dedicated DB9 male connector which enables your system to connect with a full CAN world. Powerful and intuitive programming with the CoDeSys development tool, it allows customers to configure and manage it by themselves.

Interfaces
CAN ports:	1 CAN 2.0
Max speed:	1 Mbit/s
Optical insulation:	Yes

Dimensions
Faceplate (LxH):	90.3 x 41.2 mm
Depth (D):	23,8 mm

90 mm
45 mm
24 mm

Open features
Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care *Advanced Access*	✓
Service Point *Advanced Access*	✓
Naviop® Communication World	✓

Accessories
Headed drop CAN DB9 F cable	C-26515

NAVIOP™

A modular monitoring system designed for any kind of screen. Discover the Naviop System features browsing the 7" and 15" sample applications. The system is available for other HMI screens dimensions as well, ask Naviop for further information.

The Naviop System, **clear & clever**

NAVIOP System is the most highly versatile, flexible and marine oriented system that can be adapted to any type of boat for maximum personalization, to meet very high comfort and security levels.

Boat management, automation and control by a simple touch.

N-P_-_____

N+™

The Naviop System is designed to be clear and clever.

According to the controls that have to be performed on-board, each customer can configure and customize easily and quickly his own monitoring system choosing his preferred monitoring pages.
NAVIOP offers a wide list of pages already tested and verified, to perform certain controls (lights, air conditioning, engines and many more...).
According to the NAVIOP displays chosen for the system, each page can be ordered in two different visualizations:
portrait or landscape mode for wide screens (only 7" and 13" displays)
landscape mode for 4/3 screens (all displays).
Each page can also include hardware devices to be activated.

The data shown on each page can be gathered from the field in three different ways:
- Communication protocols;
- Analogue acquisition boards;
- NMEA2000.

The customer can also personalize the monitoring pages including the Shipyard's logo, the picture of the boat and choosing the background colour within a list of predifined ones.

The Naviop System **7"**

New GENIUS Series 7" display can now embed a full NAVIOP system: through CANbus port you can manage input or output data from data boards, sensor and whatever you need on your boat. A brand new smart graphics let you see data under a different light, dividing them under simple and clear pages, accessible by a sliding menu.

Naviop 7" Engines can manage and control directly on a Naviop panel all most wellknown and used engines' protocols data.

N-P7-_____

GENIUS GLASS 7
high brightness 7" panel

7"

147 mm
187 mm
47 mm
8 mm

The Naviop Sistem
standard interface

N+™

A complete monitoring system in a small 7" display
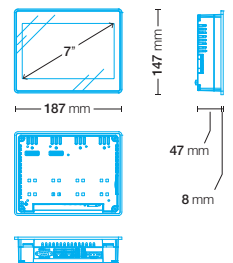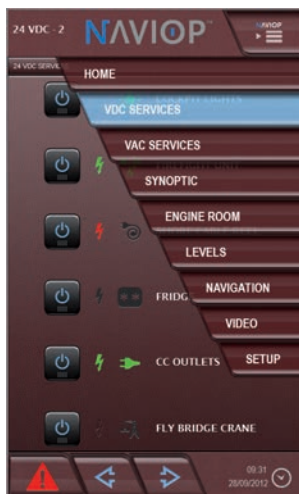
This little big Naviop System is available in both landscape and portrait form factors.
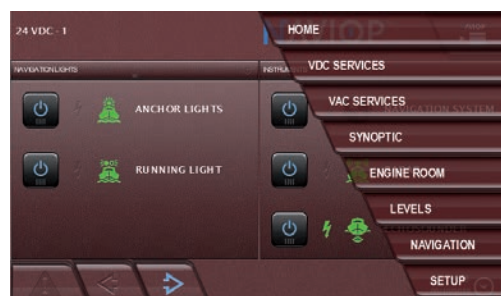
According to the space on your dashboard, this system can be mounted both in portrait and in landscape mode.
The whole NAVIOP system in a small space, without having to do without clear and simple touch commands, status feedbacks and analog values (voltages, currents, temperature or pressures), all divided in optional pages.

Communication protocol managed:

- Fuel sensor in CANbus protocol
- J1939 protocols: engins, generators
- Air conditioning
- Watermaker
- Kamewa, Humphree
- Wheather protocols NMEa0183 and NMEA2000
- Firefight units-

7" Homepage

The Home page enables to access all NAVIOP monitoring pages. This page can be personalized including the Shipyard's logo, the picture of the boat and choosing the background colour within a list of predifined ones.

Code N-P7-HOME-V
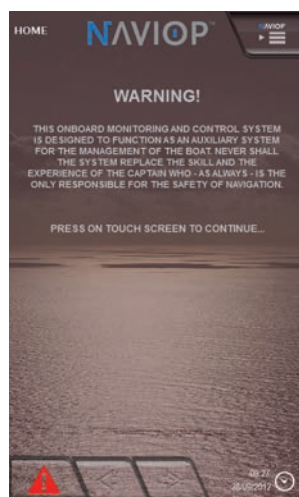
Code N-P7-HOME
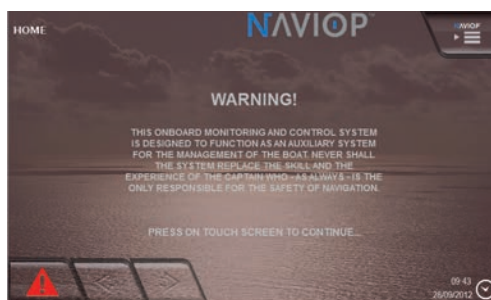
Open features	
Shipyard's logo	✓
Picture of the boat	✓
background colour	✓
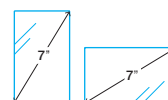
7" Engines

Engine page can show data coming from the engines. It shows
- 1 RPM analog gauge
- 1 oil pressure round analog gauge
- 1 coolant temperature round gauge
- up to 5 icons for feedbacks (status, alarms, etc.)

Multiple pages can be added, one for each engine on-board.

Code N-P7-ENGINE-V

Code N-P7-ENGINE

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓
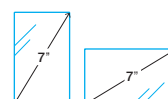
7" Vdc/Vac Appliances

More Vdc/Vac appliances pages can be added to the project. Each page can show 6 appliances. Each appliance can have:
- 1 button
- 1 magnetothermic status feedback icon
- 1 appliance status feedback icon

Code N-P7-VACSTATUS-V
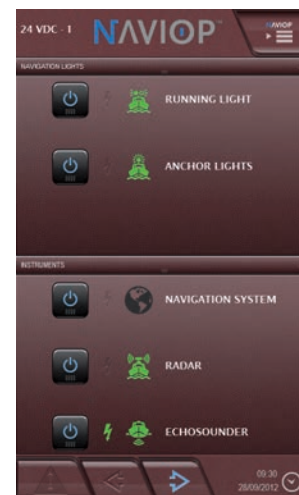
Code N-P7-VACSTATUS

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓
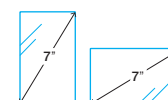
7" Synoptic

Synoptic page shows feedback icon referred to the boat.
Many other pages can be added to the project when needed.

Code N-P7-SYNOPTIC-V
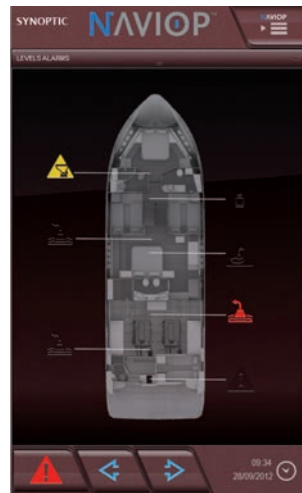
Code N-P7-SYNOPTIC

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓

N+
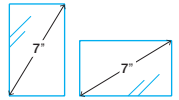
7" Batteries

Batteries page shows values for 2 batteries. More batteries pages can be added to the project. For each battery the following data can be shown:

- 1 battery voltage round gauge
- 1 battery consumption round gauge
- 1 battery breaker button, with magnetothermic status feedback icon and battery breaker status feedback icon

N-P7-BATTERIES-V

N-P7-BATTERIES

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓

N+
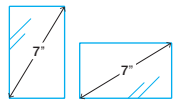
7" VAC Sources

VAC Sources page shows the VAC status on the boat referred to 4 sources.
For each source you can show:
- Voltage indication
- Current indication
- Power indication
- Frequency indication

Feedbacks give the plug status:
- Plugged source icon
- Power on line icon-
- 1 generic alarm icon
If the source is a generator, you can find:
- Start/Stop buttons
- 1 measure unit indicator (measure unit can be changed in setup page)
- 1 alarm icon

Code N-P7-SOURCESEL-V

Code N-P7-SOURCESEL

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓

N+
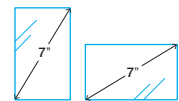
7" Lights

The lights page gives a visual representation of all on-board lights. Through this page it is possible to show the status and to control the on/off of each single light as well as the general one by just touching the display. All lights are represented on the screen by a blinking icon showing if the light is on or off.

Code N-P7-LIGHT-V
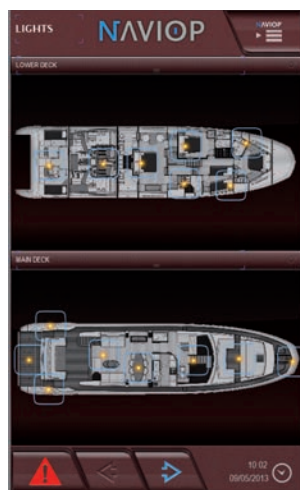
Code N-P7-LIGHT

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓

N⁺
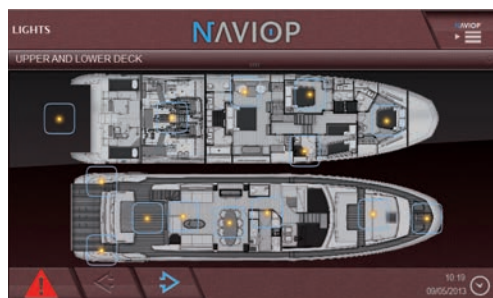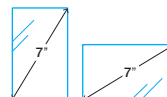
7" Tanks level

Tank levels page can show data for two tanks. Data are collected from analog board (tank level) and a three-sensor digital system to signal high/low tank level.

2 tank levels can be shown in one page.
For each tank level the following data are shown:

- 1 analog bargraph
- 1 digital tank level value
- 1 button (pump command, with magnetothermic and switch status)
- 1 max tank capacity
- 1 measure unit indicator (measure unit can be changed in setup page)
- 1 alarm icon

Code N-P7-LEVEL-V
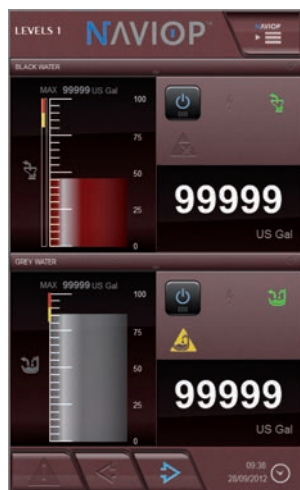
Code N-P7-LEVEL

Open features	
Protocols	✓
Analog	✓
NMEA2000	✓

N⁺
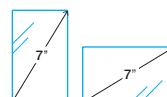
The Naviop System **15"**

NAVIOP System is the most highly versatile, flexible and marine oriented system that can be adapted to any type of boat for maximum personalization, to meet very high comfort and security levels.

N-P15-_____

A monitoring system in a 15" display

Boat management, automation and control by a simple touch

GENIUS GLASS 15
high brightness 15" panel

307 mm

15"

392 mm

60 mm

8 mm

The Naviop Sistem
standard interface

N+
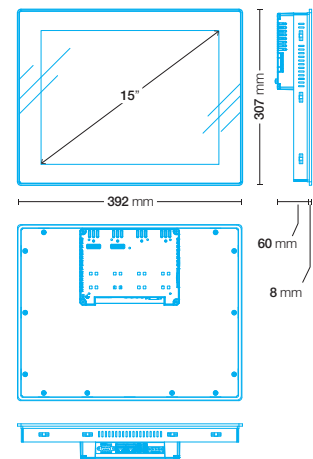
The Naviop System is design to be clear and clever.

NAVIOP monitoring system gives you the control of electrical and hydraulic handling systems, air conditioning/heating systems, propulsion units, water/levels treatment systems, on-board hydraulic systems and much more, under simple and clear pages, accessible by a sliding menu.

With a full customization of the pages on a touch screen panel, you can manage all parameters, functions and use of the whole electrical system (including Power Management System), GPS data, weather parameters, trend diagrams, on-board instruments, room management, audio-video system interfacing and entertainment.

Full safety is given by managing and recording malfunctions on on-board systems, interfacing with alarms systems, showing CCTV control, controlling access points and monitoring the boat cathodic protection system.

Software is NAVIOP system's soul, internally developed by our highly skilled engineers and developers who are continually updated on new technologies, new communication systems, new research and discoveries in software. We put no bounds on our customers' imagination and we are able to meet all their requests, even the most bizarre ones.

NAVIOP System embeds several communication protocols which collect data to the display unit.

NAVIOP™

15" Homepage

The Home page enables to access all NAVIOP monitoring pages. This page can be personalized including the Shipyard's logo, the picture of the boat and choosing the background colour within a list of predifined ones.

N-P15-HOME

Open features

Shipyard's logo	✓
Picture of the boat	✓
background colour	✓

N+™
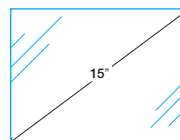
15" 230VAC

230VAC page shows the status of VAC sources. It manages 2 VAC sources lines. For each source it is shown:
- 1 voltage gauge
- 1 consumption gauge
- 1 power gauge
- 1 frequency gauge

In the middle of the page there are icons showing information about the correct VAC sources supply.

N-P15-VACSTATUS

Data access

Protocols	✓
Analog	✓
NMEA2000	✓

N+™
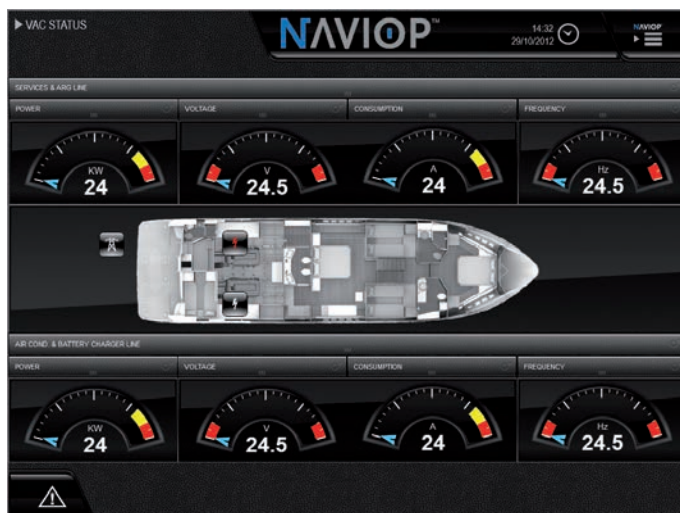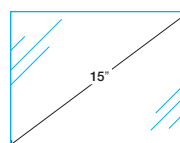
15" Alarms

Alarms Page gives you a visual rapresentation of the NAVIOP System pages and the alarms status for each one. A blinking red icon signals that an alarms is present in a page, while a steady red icon lets you know that the alarm has been already recognized.
The page can show up to 32 pages status.

N-P15-ALARM
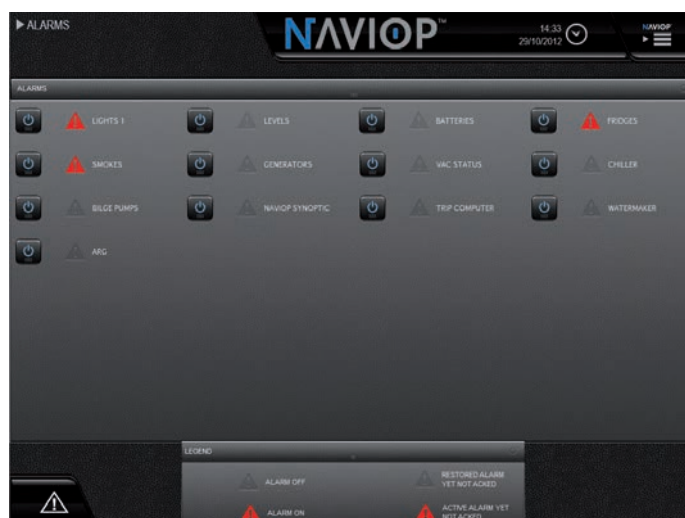
15" Video

N-P15-VIDEO

In this page, NAVIOP System can show you the images from a video source. Depending on the panel display on which the monitoring system is shown, the video source can be in OverIP or PAL video camera.

Data access	
Protocols	✓
Analog	✓
NMEA2000	✓
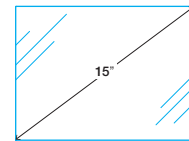
15" Batteries

N-P15-BATTERIES

Batteries page shows data for 8 analog values coming from batteries.
Standard page shows 8 analog gauges, divided into:
- 4 voltages (services, engine, generator 1 and 2 batteries)
- 4 currents (service batteries consumption and absorption, port and starboard alternator charge)
Each analog gauge can show a button, with feedback icon for a battery breaker.

15" Flap & Trim

N-P15-FTL

Flap page shows the trim tabs' settings.
The standard page can show:
- trim tabs analog round gauges

Extra options:
- 1 digital SOG
- Best setting indicators on the trim tabs gauges

15" Air Conditioning Fancoil

According to the number of on-board fancoils, multiple fancoils pages can be added.
Data displayed for each fancoil are the following:
- fancoil number
- actual and desired temperature, with buttons to change the set point
- ventilation speed, with buttons to change it
- measure unit set buttons
- hot/cold setting buttons
- 1 button to copy a certain setting to all the fancoils

N-P15-AIRCON
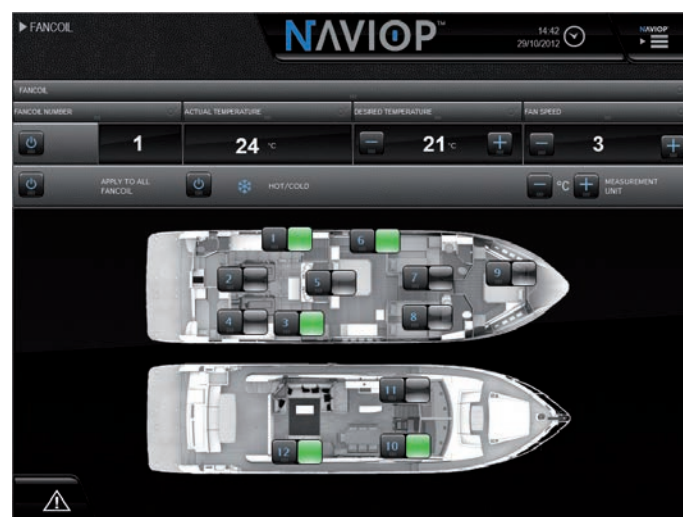
Data access	
Protocols	✓
Analog	✓
NMEA2000	✓
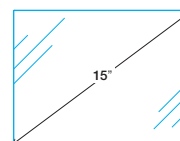
15" Air Conditioning Chiller

If a boat is equipped with a Chiller, it is possible to monitor it through this page. The following data are shown:
- 4 compressors consumption analog gauges
- 4 in/out coolant temperatures analog gauges
- 1 chiller on/off button
- 1 hot/cold icon
- 2 measure units setting buttons
- on/off buttons for sea water pumps
- on/off buttons for treated water pumps
- 4 compressors on/off buttons

N-P15-AIRCHILLER

15" Generators

The Generators Page shows information for 2 generators. Data are collected by J1939 protocol. For each generator the following data are visible:

- 1 round analog gauge for oil pressure
- 4 analog gauges for batteries voltage, coolant temperature, VAC voltage and VAC fequency)
- 1 generator Start/Stop command button (with status icon)
- 1 cumulative alarm icon, with reset button

N-P15-GENERATORS
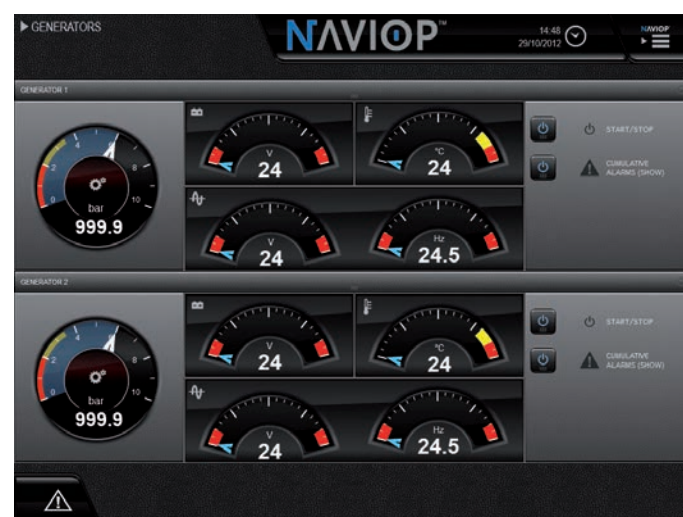
15" Digital Appliances

N-P15-APPLIANCE

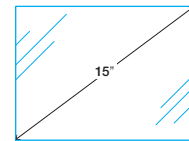**Each Digital Appliances page can show 32 buttons, with magnetothermic status and feedback status**

Multiple pages can be added to your NAVIOP System, e.g. separating VAC to Vdc appliances, or navigation ones.

Data access	
Protocols	✓
Analog	✓
NMEA2000	✓

N⁺

15" Tanks level

N-P15-LEVELS

Each Tank Levels Page can show 4 tank levels information. Each tank section is composed by:

- 1 bargraph with tank level in percentage
- 1 button for a pump (if present), with MT status and feedback
- 1 digit for the maximum tank capacity
- 1 digit for the actual tank level value
- up to 4 icons for alarms (3 sensors system)

Multiple pages can be added if more tank levels are needed.

15" Weather

N-P15-WEST

Meteo Page shows information from NMEA0183 protocol (usually from NAVIOP WEST weather station unit). Here you can see:
- 1 Atmospheric Pressure 24h data trend, with istantaneous value
- 1 Atmospheric Temperature 24h data trend, with istantaneous value
- 1 Relative Humidity 24h data trend, with istantaneous value
- buttons for trends management (zoom in, zoom out, delete, etc.)

15" Sources selection

Sources Selection Page lets you know which VAC source gives power up to two VAC lines.
In a graphic description, green lines connect the sources to the lines, giving an immediate idea of the system status.
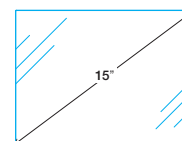For each line the following data are shown:

- 1 voltage analog gauge
- 1 current analog gauge
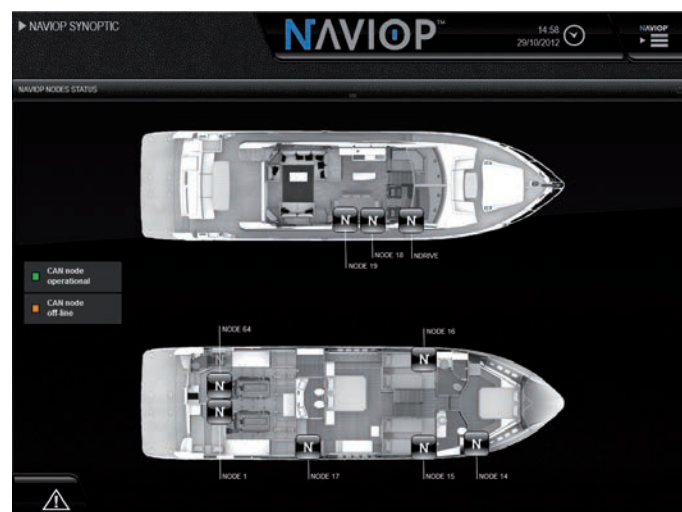- 1 power analog gauge
- 1 frequency analog gauge

Data access	
Protocols	✓
Analog	✓
NMEA2000	✓

15" Synoptic

N-P15-SYNOPTIC

In Synoptic Page all the CANbus nodes composing the boat's NAVIOP system are shown, including an icon for their status. Here the CANbus net status can be easily checked.

15" Smoke, Doors, Portholes

N-P15-PORTHOLE

In this page many icons show the status of items belonging to cathegories of Smokes (e.g. raiser high temperature alarms, fire unit system zones or failure), Doors (feedbacks about doors if open or closed are provided here) and Portholes (a monitoring system could check if portholes are still open when the boat is beginning its navigation).
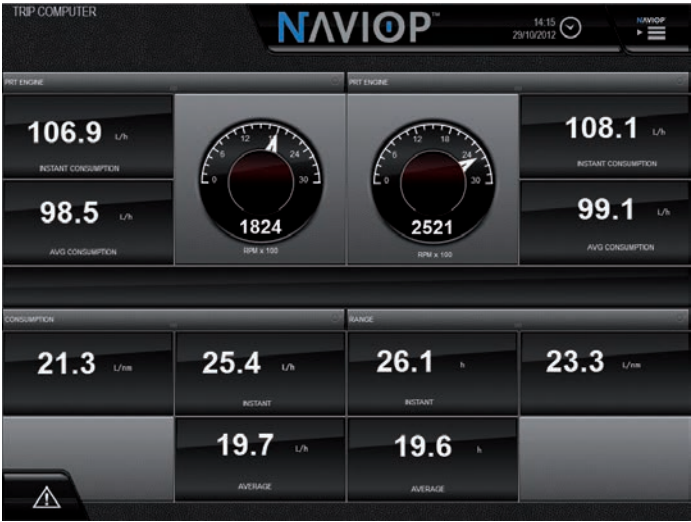
15" Trip Computer

N-P15-TRIPCMP
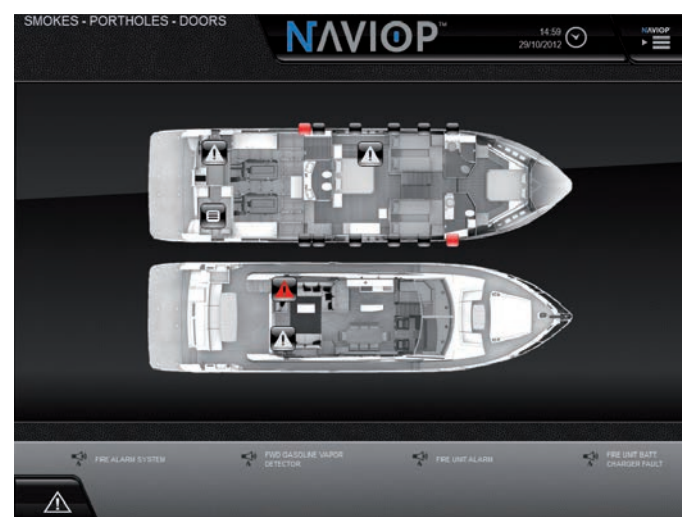
Important information about navigation is enclosed in Trip Computer Page.
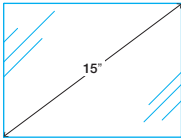For each engine the following is shown:
- istantaneous and average consumption digital value
- 1 RPM value in analog gauge
- Overall, istantaneous and average consumption and range

Data access	
Protocols	✓
Analog	✓
NMEA2000	✓

15" Naviop Charts optional kit

N-CHARTS

NAVIOP CHARTS is the revolutionary NAVIOP application which combines monitoring system and cartography in only one display. NAVIOP CHARTS offers you the integration between NAVIOP monitoring system and an Electronic Navigational Chart (ENC).
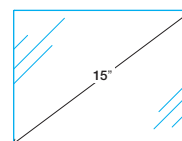The chartplotter displays the ENC along with the position, heading and speed of the ship, and it is fully integrated with NAVIOP Monitoring System.

Data access	
Protocols	✓
Analog	✓
NMEA2000	✓

N+™

15"
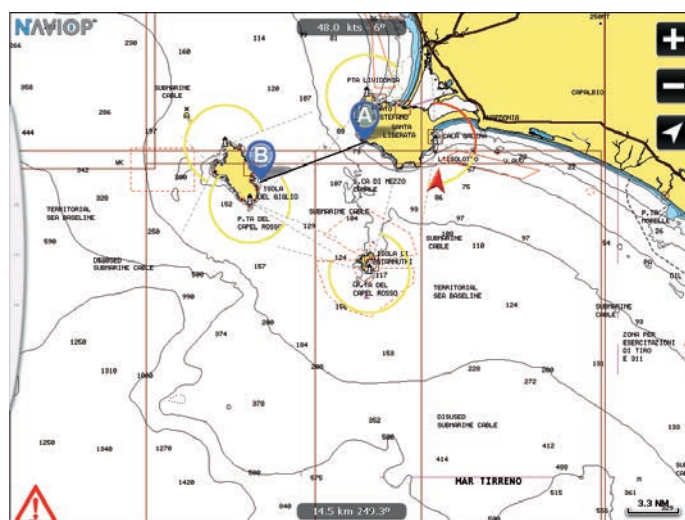
15" NPilot Driver optional kit

N-OPT-PILOT-DRIVER

Scroll the NAVIOP System pages with NAVIOP NPilot optional kit. Three configurations are possible:
• Optical Rotary Encoder
• Encoder with Pushbutton
• Joysticking Encoder with Pushbutton
J1939 and CANopen versions
Dimmable LED indicators and legends
Sealed to IP67
Vibration and impact resistant
Operating Temp: -40oC to +85oC
Designed for 12/24 volt systems

+

7" Engine

Naviop Engine system has been designed and built to display all the engine's operating conditions. The most cutting-edge computer technology has been used to create the monitoring system. A user-friendly view has been employed to guarantee users an easily intuitive approach, with data clearly shown. The monitoring system is fitted with input and output ports to allow a range of connections.

7" Flap & Trim

Best performances from your vessel, with an eye to consumption. You can have both with Naviop Flap & Trim, the monitoring panel connected with yacht's navigation system.
From small boats to bigger ones, the advantages in navigation are well known.
It's possible to monitor the position of the steering equipment and the trim. The very bright bars on the dashboard highlight the current value of operation for the equipment.
Naviop Flap & Trim is fully scalable and capable of being modulated according to different requirements.

7" Evolight

The Naviop Evolight can be flush mounted into the boat dashboard with no protruding bezel, buttons or knobs, giving the boat a modern and sophisticated character through an elegant and essential design. The basic kit is provided with the brand new Genius 7G high brightness operating panel, a unit for the I/O management and a 10mt ethernet backbone.
Its modern and nice-looking shape can fit in whatever kind of dashboard in an elegant and harmonious way. Thanks to its fully scalable technology the product has already demonstrated its cabability to meet the needs of the most demanding and different customers.

Ready-made solutions

The Naviop solutions can manage and monitor some pre-defined on-board parameters and technical devices: plug-and-play products, fully scalable, to provide small size boats with a monitoring and control system that can be essential, reliable and cheap.

Ready-made solutions are the best way to automate controls and safety on small boats, because it is easy to install and use them and because they have a strong technology designed specifically for marine environments.

N+™

The Naviop System is designed to be clear and clever.

These Solutions are composed by given hardware devices and software monitoring pages, which cannot be changed or modified, chosen and created by our engineers on the base of our experience.
All NAVIOP Solutions are covered by the NAVIOP valued services wich make them realiable, safe and innovative.

READY-MADE SOLUTIONS:

Engines
Flap & Trim
Evolight
NRG Series
SMS Alert

7" NRG Series

Naviop NRG is the new system based on Genius Glass 7 touch screen panel, born to manage and control the whole electrical plant directly from the touch screen display. Perfect solution for small size boats, where the optimization of spaces and costs is crucial, Naviop NRG enables to eliminate the electrical panel and manage the lines through a compact and cheap power distribution system.

7" SMS Alert

Naviop SMS Alert is able to manage the complete surveillance and guarantee safety also when no one is on-board. It sends immediate notifications messages to the owner's mobile phone, everywhere, in case of faults or alarms on the boat.
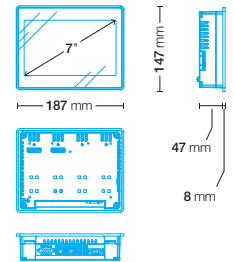
7" Engine

NVK-ENG-_____

NAVIOP ENGINES system has been designed and built to display all the engine's operating conditions. The most cutting-edge computer technology has been used to create the monitoring system. The user-friendly principle has been employed to guarantee users an easily intuitive approach, with data clearly shown. The monitoring system is fitted with input and output ports to allow a range of connections.
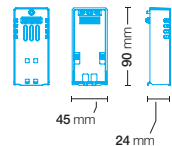
Two engines in round gauges.

GENIUS GLASS 7
high brightness 7" panel

7"

187 mm

147 mm

47 mm

8 mm

The Naviop Sistem standard interface

N+™

FOS 01 Module

90 mm

45 mm

24 mm

ION Module

Naviop 7" Engines can manage and control directly on a Naviop panel all the most wellknown and used engines' protocols data.

According to each customer needs it will be possible to choose between 2 versions:

5 ENGINE DATA (J1939, Analogue, NMEA2000)
20 ENGINE DATA (J1939, NMEA2000)

Compliant versions	
5 data J1939	NVK-ENG-S-J1939
5 data NMEA2000	NVK-ENG-S-N2000
5 data Analogue	NVK-ENG-DAB
20 data J1939	NVK-ENG-M-J1939
20 data NMEA2000	NVK-ENG-M-N2000

Optional pages	
Charts	N-CHARTS
Trip computer	N-TRIPCMP
Video IP	

Engines monitoring

NAVIOP ENGINES can manage and control directly on a Naviop panel all the most wellknown and used engines' protocols data. The monitoring system is automatically activated and deactivated when the vessel engine's electronic system is switched on and off. Naviop ENGINES is fully scalable and capable of being modulated according to different requirements.

When the engine's electronic system is switched on you can access the Home Page and navigate through data pages operating on a sliding menu. Many pages show you both analog and digital data, such as:
- engine speed
- temperature
- pressure
- battery voltage
- fuel level in tanks
- current fuel consumption
and much more.

7" Flap & Trim

Best performances from your vessel, with an eye to consumption. You can have both, with NAVIOP FLAPTRIM, the monitoring panel connected with yacht's navigation system. From small boats to bigger ones, the advantages in navigation are well known. In a solid IRON series touch screen display it is possible to monitor the position of the steering equipment and trim. The very bright bars on the dashboard indicate the current value of operation for the equipment.
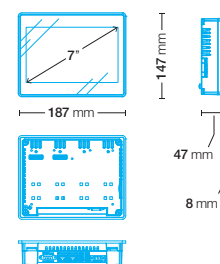
Naviop FLAPTRIM is fully scalable and capable of being modulated according to different requirements.

Trim tabs, bow trims and rudder settings at a glance.

GENIUS GLASS 7
high brightness 7" panel

147 mm

187 mm

47 mm

8 mm

The Naviop Sistem standard interface

N⁺

Trim tabs and bow trims: a good setting enhances better performances and reduced consumption.

When the system is switched on you can access and control the following data:
- Flap and Trim
- Rudder angle
- 4 tank levels
See below: Tanks Level Page, and a high contrast version of the Home Page.

Simple and efficient.

Through the screen it is possible to display the current levels of the on-board tanks, such as fresh water, fuel, grey water and waste water, all with the digital value indication and a coloured bar to know immediatly the tanks' content.

The system is able to read automatically any malfunction in the operation of the supervised equipment. After a malfunction detection, the acoustic signal for the alarm (buzzer) is activated and the status icon for the "alarms" button becomes flashing red.

If the screens are not easily readable, for example, due to poor ambient lighting conditions, it is possible to activate the high contrast viewing mode simply acting on Setup Page. Until this mode is not activated, the screens on the system will be displayed in their normal contrast version.

7" Evolight

The Naviop Evolight can be flush mounted into the boat dashboard with no protruding bezel, buttons or knobs, giving the boat a modern and sophisticated character through an elegant and essential design.
The basic kit is provided with the brand new GENIUS 7G high brightness operating panel, a unit for the I/O management and 10mt ethernet backbone.
Its modern and nice-looking shapes can fit in whatever kind of dashboards in an elegant and harmonious way and thanks to its fully scalable technology the product has already proved its capability to meet the needs of the most demanding and diverse customers.

Naviop Evolight is fully scalable and can be equipped with several optional kits

GENIUS GLASS 7
high brightness 7" panel

147 mm
187 mm
47 mm
8 mm
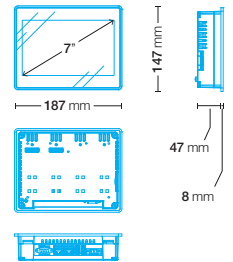
10 m ethernet backbone.

Unit for the I/O management to be put into the main electrical panel.

a new fully scalable product to provide small size boats with a monitoring and control system

The latest revolution for small size boats.

EvoLight is the new Naviop revolution: a new fully scalable product to provide small size boats with a monitoring and control system that can be essential, reliable and cheap.
The Naviop Evolight system enables to integrate and monitor almost all on-board controls in only one display that can be flush mounted into the boat dashboard. Thanks to the ease of installation and use and the high strength of its technology designed specifically for marine environment, EvoLight is the best system to automate controls and safety on small boats, equipping them with one of the most modern and cutting edge solutions.

Naviop Evolight is fully scalable and capable of being modulated according to different requirements. It is possible to equip the system with the following optional kits, widening the real potentialities and monitoring all on-board devices and controls.

VERSION 1 -
PAGE FLAP, TRIM, HELM ANGLE DATA
PAGE LEVELS WITH ALARMS
PAGE TENSIONS 12/24 VDC WITH ALARMS
PAGE ALARMS

VERSION 2 -
PAGE TEMPERATURES MONITORING
PAGE LEVELS WITH ALARMS
PAGE TENSIONS 12/24 VDC WITH ALARMS
PAGE ALARMS

7" Engines optional kit

This optional kit enables to control engines (RPM, oil pressure, water temperature and more) by J1939 communication protocol. All engine data can be visualized at-a-glance in this monitoring page. The product is composed by NAVIOP cables for connection to engine electronic control unit with a 10mt backbone and a dedicated software page.

NVK-EVO-L-ENG
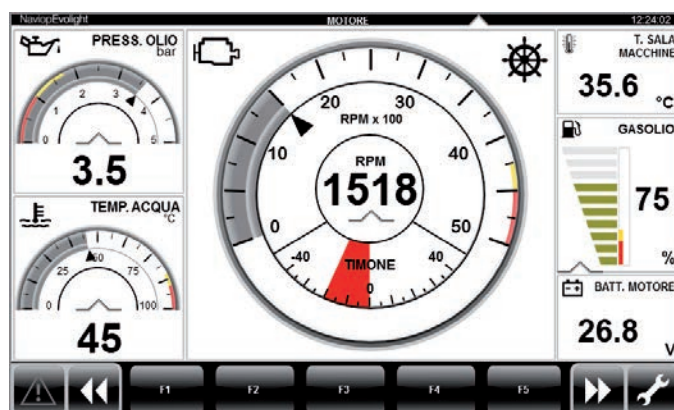
7" NMEA0183 navigation optional kit

The Navigation optional kit enables to monitor some of the most important navigation data, just like compass, GPS, wind, depth, SOG etc...) under NMEA0183 serial communication protocol. The easy full-configurable interface can show data into 5 values choosen in setup phase.
The product is composed by connection cables with a 10mt backbone and a dedicated software page.

NVK-EVO-L-NAV
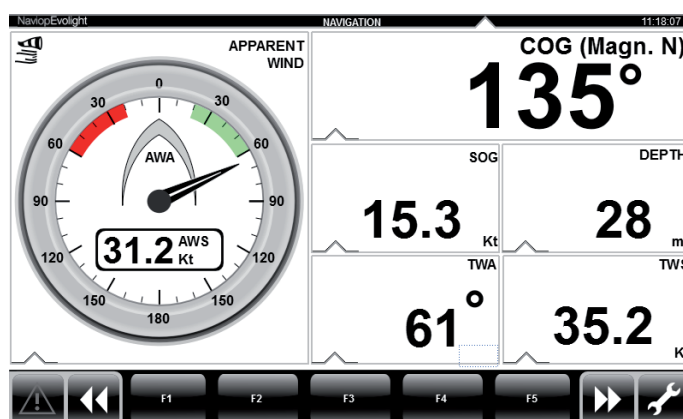
7" Remote

Naviop allows wifi remote connection to the system through personal mobile phones (supporting iPhone, Blackberry, Android and others), Ipads, PCs or ground service centres. Using an internet connection via PC or mobile phone, you can access various tools, including CCTV cameras, alarm SMS and malfunction and alarm warnings. It is also possible to control all boat features, both in standard and in full optional version, such as air conditioning, refrigeration, lighting, audio and more, all from a distance.
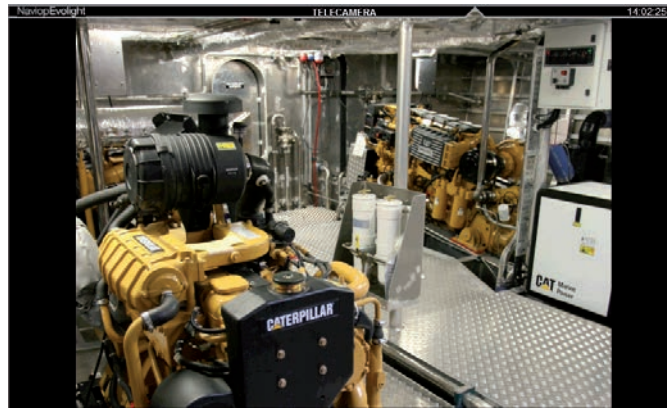
NVK-EVO-L-REM

7" CCTV camera optional kit

NVK-EVO-L-TVCC

This option enables to show one or more OverIP video cameras placed in whichever part of the boat, from cockpit to engine room.
The kit is composed by a 10mt CAT.6 ethernet patch cable and its dedicated software page. (OverIP video camera not included).


7" Weather data optional kit

NVK-EVO-L-WEST

Through the weather control option it is possible to have precise Pressure (mBar), Temperature (°C) and Relative Humidity (%RH) measures, shown through graphs referred to the last 24h. With intuitive buttons the weather trends can be zoomed in and out, cleared or shifted onto the timeline to better analyze the desired data. The Kit is composed by a NAVIOP WEST weather IP65 control unit, a 5mt serial line for the connection to the panel and a dedicated software page.
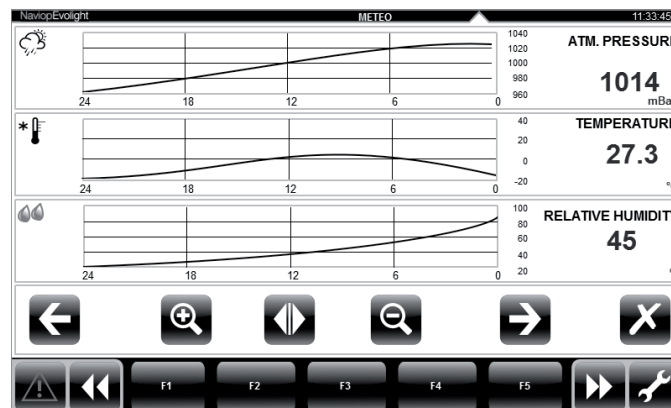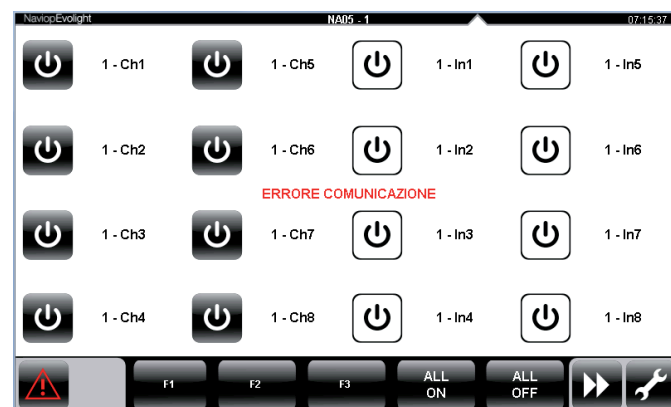

7" Lights optional kit

NVK-EVO-L-LIGHT

Through this Naviop Evolight option it is possible to manage all boat lights (stairs lights, cabin lights etc...) through NAVIOP NOVA Canbus board, which can drive and monitor up to 8 light channels through relays.
It is composed by a relay canbus interface controller card NAVIOP NOVA, a CANbus drop cable and a dedicated software page. It is possible to control up to 8 separate lights lines and each line can tolerate up to a max 10 Ampere load.

7" RGB Light control

NVK-EVO-L-RGB
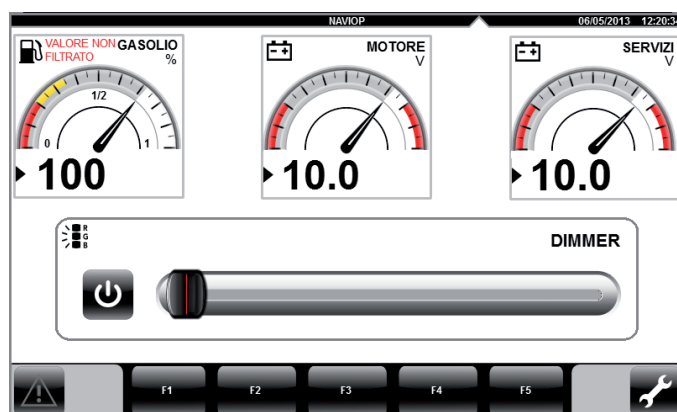
RGB light control optional kit (RGB control unit not included) (NVO-EVO-L-RGB) The RGB optional kit enables to choose lights colours creating different scenarios in whichever part of the boat. The product is composed by cables of connection to the RGB control unit and a dedicated software page. The RGB control unit is not included.

7" Alarm SMS

NVK-EVO-L-SMS

The optional SMS Alarm Kit is composed by a GPRS unit complete with a SIM holder, a 2,5mt antenna down lead and a 2mt serial line for the connection to the panel. The Kit enables to send SMS messages when certain warning alarms are active or when certain thresholds, that can be set in advance through the systems, are overtaken. The kit can be installed directly under the battery thanks to its low electrical consumption and it guarantees a continuous surveillance of the boat also when no one is on board. The system requires a SIM card not included.
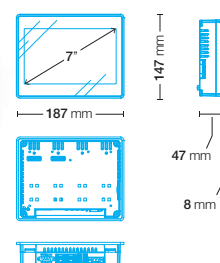
7" NRG Series

NAVIOP NRG is the new system based on GENIUS GLASS 7 touch screen panel born to manage and control the whole electrical plant directly from the touch screen display. NAVIOP NRG is the perfect solution for small size boats, where the optimization of spaces and costs is crucial, and it allows to eliminate the electrical panel and manage the lines through a compact and cheap power distribution system.

NVK-NRG-_____

31M-000-2
BUSS-1851-2M
BUSS-1852-1M

GENIUS GLASS 7 high brightness 7" panel with 2 CAN ports (IP69 front and IP20 back with die-cast aluminium case), designed and approved for applications in marine environments, which differs for the very high brightness and mechanical strength, making it perfect in each sailing conditions. The brand-new generation touch screen function allows to input quick and precise commands.

NAVIOP Egon 12/24V distribution board

The Naviop Sistem standard interface

All system labels and messages are fully configurable, giving the user a wide range of customization

NAVIOP NRG Series features up to 16 monitored and controlled circuits

Naviop NRG is a 9-32 volt system able to monitor and control circuits, such as navigation lights, stairs lights, cabin lights, engine lights, pumps, etc. Through its touch screen display it is also possible to make a real disgnostics of the fuse in case of malfunction.
NAVIOP NRG Series features up to 16 monitored and controlled circuits from NAVIOP EGON System board and engine data display.

NAVIOP EGON

The cutting-edge innovation of the NRG technology is the brand new NAVIOP Egon distrbution board, able to supply power to the all boat. The Egon board communicates through a CAN bus network and it is a perfect solution to control and monitor circuits up to 20A at 12V or 10A at 24V.
Egon enables to reduce the cables necessary on a boat, considerably cutting down costs ant time of wiring. As a single and cumbersome electrical panel is not necessary anymore, it is possible to delocalize the power distribution system to better use the space available on-board.
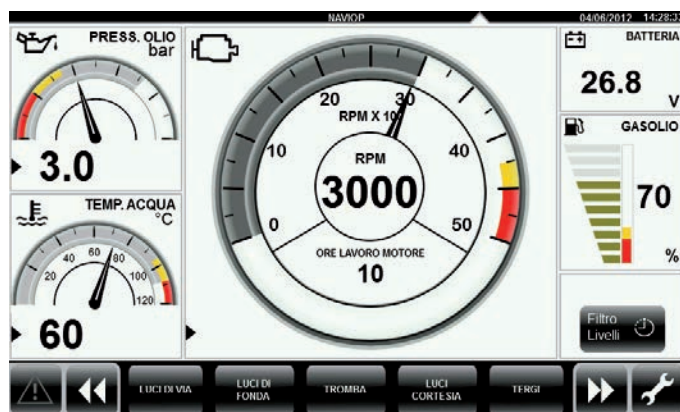
7" NRG Standard

NVK-NRG
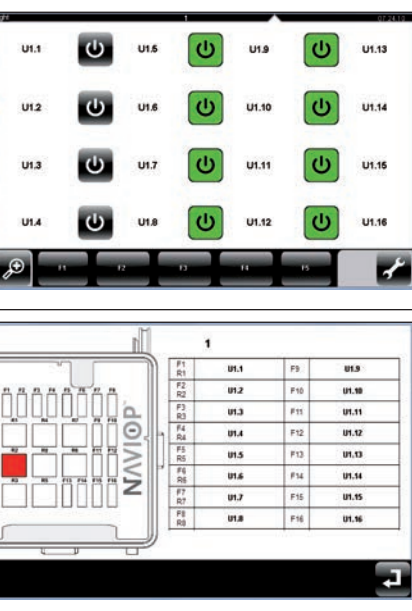
NRG is the standard version of the product, based on GENIUS GLASS 7" touch screen display and 1 NAVIOP Egon 12/24V distribution board.
The system is provided with software for:

- 8 CONTROLLED CIRCUITS, 8 MONITORED CIRCUITS
- J1939 ENGINE DATA DISPLAY (RPM, PRESSURE, WATER TEMPERATURE) AND FUEL LEVEL
The system is ready to be installed.

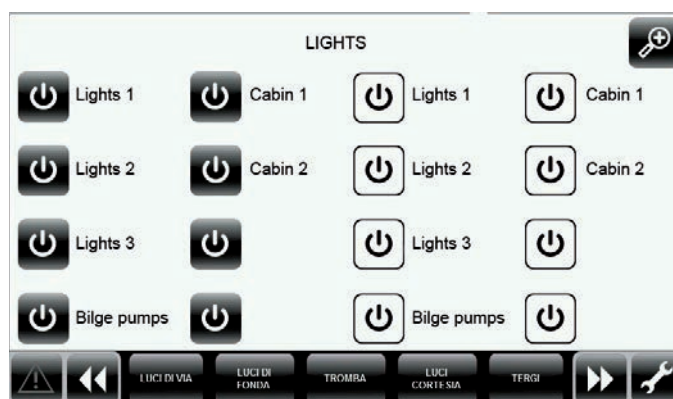## 7" NRG Plus

NVK-NRG-PLUS

NRG Plus is the advanced version of the product, based on GENIUS GLASS 7" touch screen display and 2 NAVIOP Egon 12/24V distribution boards.
The system is provided with software for:
- 12 CONTROLLED CIRCUITS, 12 MONITORED CIRCUITS
- J1939 ENGINE DATA DISPLAY (RPM, PRESSURE, WATER TEMPERATURE) AND FUEL LEVEL
The system is ready to be installed.

7" Charts
Optional kit

NVK-NRG_CHARTS

Naviop Charts is the revolutionary NAVIOP application which combines monitoring system and cartography in only one display. NAVIOP CHARTS offers you the integration between NAVIOP monitoring system and an Electronic Navigational Chart (ENC).
The chartplotter displays the ENC along with the position, the heading and the speed of the ship, and is fully integrated with NAVIOP Monitoring System
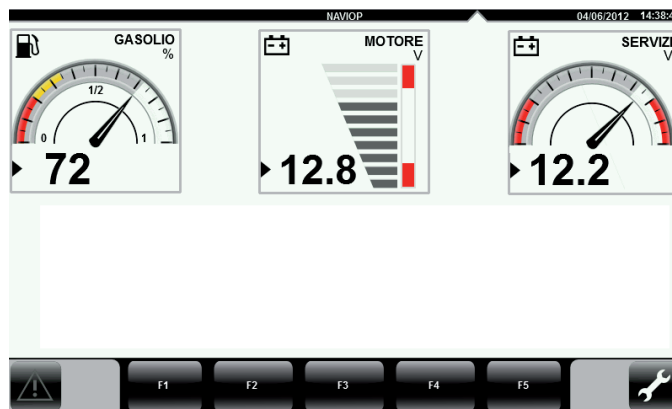
7" NRG Lagoon

NVK-LAGRG
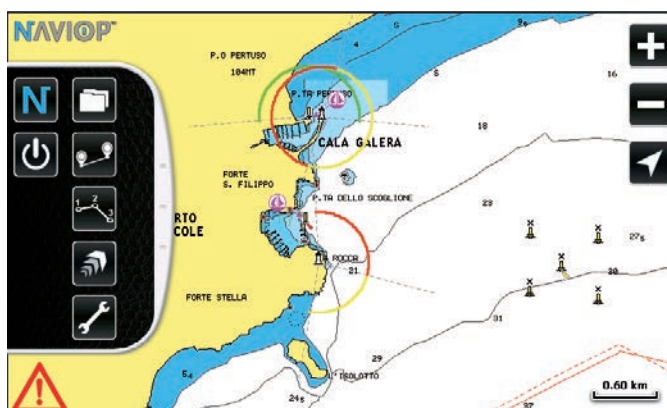
NRG Lagoon enables to monitor up to 16 circuits, among which: navigation lights, stairs lights, cabin lights, engine lights, bilge pumps, vhf, horn, windscreen wipers, taximeter etc. The basic version is composed by a GENIUS GLASS 7" touch screen display and n°2 NAVIOP Egon 12/24V distribution boards. Provided with software for:
- 16 CONTROLLED CIRCUITS, 16 MONITORED CIRCUITS
- J1939 ENGINE DATA DISPLAY (RPM, PRESSURE, WATER TEMPERATURE) MONITORING BATTERIES VOLTAGE, STERNLEG, HELM ANGLE AND FUEL SENSOR

7" NRG Lagoon Plus

NVK-LAGRG-PL

The NAVIOP NRG Lagoon Plus version is composed by a GENIUS GLASS 7" touch screen display and n°2 NAVIOP Egon 12/24V distribution boards. The system is provided with software for:
- 16 CONTROLLED CIRCUITS, 16 MONITORED CIRCUITS
- J1939 ENGINE DATA DISPLAY (RPM, PRESSURE, WATER TEMPERATURE)
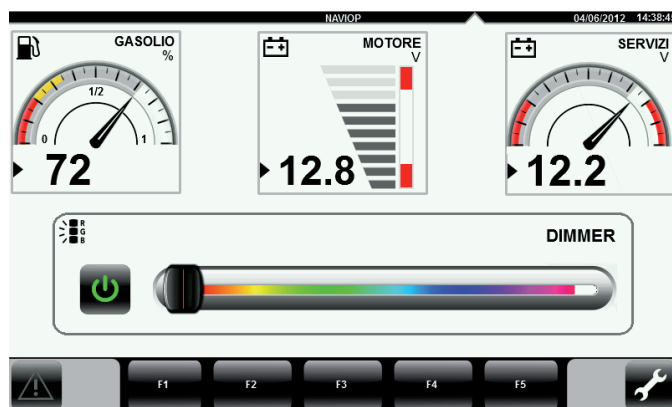- MONITORING BATTERIES VOLTAGE, STERNLEG, HELM ANGLE AND FUEL SENSOR
- TCPIP VIDEO CAMERA
- RGB CONTROL
- REMOTE DISPLAY ON TABLET (iPad, Android) AND PC OF VIDEO CAMERA AND LIGHT CONTROLS
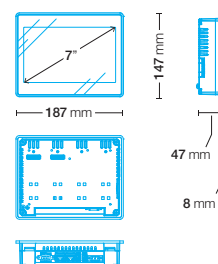
7" SMS Alert

NAVIOP SMSAlert is able to manage the complete surveillance and guarantee safety also when no one is on-board. It immediately sends notifications messages on mobile phone, everywhere, in case of faults or alarms on the boat.

Your boat at-a-glance, wherever you are

GENIUS GLASS 7
high brightness 7" panel

147 mm
187 mm
7"
47 mm
8 mm

N+™

This system can be installed directly under the battery thanks to its low electrical consumption and guarantees a continuous surveillance of the boat

01


Made for your boat's safety.

NAVIOP SMSAlert on NAVIOP GENIUS 4" polycarbonate touch display, enables to send SMS messages when certain warning alarms are active or when certain thresholds, that can be set in advance through the systems, are overtaken.

This system can be installed directly under the battery thanks to its low electrical consumption and guarantees a continuous surveillance of the boat also when no one is on board. The system requires a SIM card not included in the kit.

The main page shows the connection status, giving you the information about GSM connection. In setup you must set the telephone number you prefer to call (up to 4), the text messages you want to receive or you want to send in order to turn on or off the output channels.

The optional kit contains a GPS unit, that gives you the position of the boat and sending an alarm SMS if the boat is farer than a set radius.

02
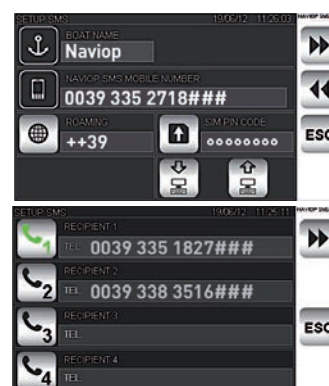
03
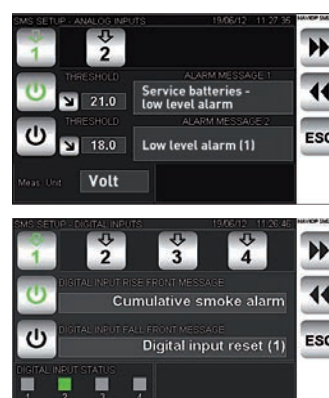
Naviop **at a glance**

Naviop System is the most versatile, flexible and marine oriented system.
It fits any type of boat for maximum personalization, to meet very high comfort and security levels.

Naviop products and solutions can manage and monitor all on-board parameters and technical devices requiring advanced user interface:

- **Scalable applications** which can be easily customed according to the requirements. Naviop offers a wide range of hardware devices (HMI and PLC) and software monitoring pages which can be chosen and combined one with another to personalize the monitoring system on the base of each need and perform certain controls (lights, air conditioning, engines...).

- **Ready-made solutions** including plug-and-play products to perform limited controls on smaller applications. These solutions are composed by hardware devices and monitoring applications, which cannot be changed or modified, chosen and created by our engineers based on our experience.

Naviop monitoring applications and solutions are covered by several valued services which make them reliable, safe and innovative.

Each Naviop product can be combined one with another to quickly create safe and innovative monitoring systems, in a dynamic, scalable way.

Naviop Valued Services:

Quality Control
Software Expertise Access
Research & Development Access
Graphic Human Machine Interface
Partners' Network Access
Easy SOS
Customer Care Advanced Access
Service Points Advanced Access
Communication World

All Naviop monitoring systems are fully pre-tested in our laboratories. Each single component as well as the whole system, is assembled and tested by our engineers under the most strict rules of quality control and are covered by a Warranty Certification which guarantees the customer and gives him access to the whole Naviop Service Points network.

Naviop Expertise Access

Thanks to its wide expertise in designing marine monitoring and control systems, Naviop supports its customers while planning their own system and helps them to solve all problems and challenges that can arise during the boat building. During the testing of the first boat, a Naviop engineer is always present. The construction of a boat is not something static, but it's very often a dynamic process which needs to be defined and re-defined several times. Naviop staff can help shipyards to find the right solutions to all those changes.

Naviop R&D Access

Naviop shows great care in research. Our engineers and developers are updated on new technologies, new communication systems, new researches and discoveries in the field of software and materials. Innovation is the core of our company development. That's why all Naviop products represent the state-of-the-art in monitoring and control systems: our customers can be sure about the fact that the hardware and software solutions on their boats are always innovative and cutting-edge.

Naviop Graphic Interface

All Naviop products don't include just software development, but also all the graphic interfaces. Thanks to our team of skilled designers and architects, our systems are well-known in the market for their intuitive, original and user friendly interfaces. Only Naviop customers can access the HMI graphics engineering that aims at making the use of the on-board technology easier.
Naviop products can also be equipped with special and custom-made projects featuring specific shipyards' requests.

NAVIOP Partners' Network

Over the years, Naviop has made lots of partnerships with the most important and well-known marine and industrial brands, developing projects and finding new solutions to improve its monitoring and control systems. That's why Naviop products can be enhanced with all the expertise and know-how of this network of partnerships.

N+

Naviop Easy SOS

Naviop knows very well that, on-board, each fault or alarms must be notified and fixed as soon as possible. Only Naviop products are covered by the "Easy SOS" service. Naviop systems can be provided with a kit composed by a mini PC equipped with a specific software. Connecting the Naviop panel to the PC through an Ethernet cable, our technicians can access remotely the system from everywhere and verify faults, damages and problems, both hardware and software ones, and fix them in real time, reducing costs and times of maintenance.

Customer Care Advanced Access

Naviop provides a complete assistance before, during and after sale of its products so to guarantee the system to run perfectly and avoid unpleasant problems. Naviop products give access to an Extended Customer Care, which means not only phone and email help, but also direct on-board assistance to deal with the control, the settings, the upgrades and the maintenance of the system. This service is performed by Naviop Service Department, which ensures a quick and focused reply to questions or troubles.

Service Points Advanced Access

Only Naviop products are covered by an Advanced After Sale Service, which guarantees our customers to receive assistance and help within 24hours. Thanks to a wide network of over 70 service points worldwide, Naviop customers can always count on skilled technicians able to solve technical problems, carry out maintenance and updates and install complete systems in the shortest time at the lowest cost. In case of replacement of a Naviop product, the Service Point will receive the new goods, come on-board and make all assistance and maintenance guaranteeing all Naviop quality controls.

Naviop Communication World

The major asset of Naviop World is its language, which allows to interface with any on-board instruments by means of standard and proprietary protocols of any company (CANBUS, ETHERNET, RS232/422/485, USB and much more).
The competence and experience of our know-how let us turn various protocols into a single common language.

The Naviop Monitoring System

The Naviop monitoring system is composed by hardware and software solutions to perform boat management, automation and control by simply touching a touch screen panel.
Highly versatile, flexible and always in evolution, Naviop systems can be adapted to any type of boat for maximum personalization, to meet very high comfort and security levels.
Each customer can configure and customize his own monitoring system choosing:
- **hardware devices**, which include HMI panels and PLC units. All Naviop hardware is enhanced with an integrated and verified software born of our extensive experience in marine market and protocol management.
- **monitoring applications**, which include a wide list of applications already tested and verified, to perform certain controls (lights, air conditioning, engines...).

In its most extreme configurations, the system can be customized to develop and manufacture unique products, created to meet specific needs according to all customer's desires, even the most bizarre ones. The result is a real tailor-made monitoring system.

naviop.com

Engineering, R&D e Service

NAVIOP S.R.L
via E. Barsanti, 10 47122 Forlì (FC)
ph. +39 0543 724980   fax +39 0543 751539
info@naviop.com   service@naviop.com

Sales & Marketing

Acson Marine Srl
via E. Barsanti, 10 47122 Forlì (FC)
ph. +39 0543 721918   fax +39 0543 792158
info@acsonmarine.com

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For the constant desire to improve our products and services or to variations due to
manufacturing reasons, the technical specifications are subject to change without notice.
Contact Naviop or its representative for further, accurate information.
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naviop.com