

NAVIOP™

the
catalogue



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

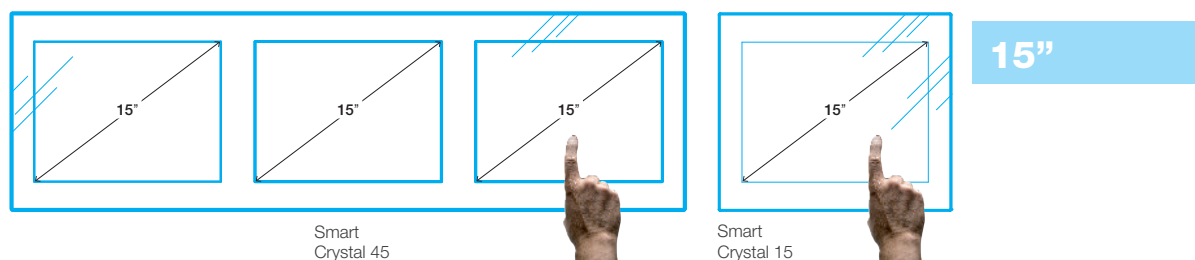
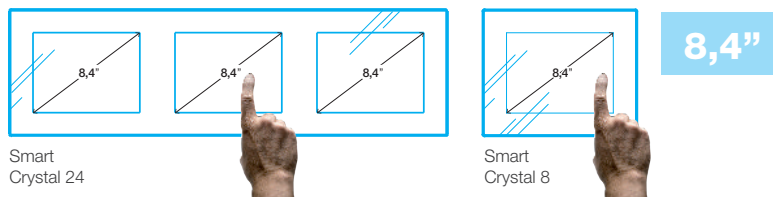
The Smart Crystal Series represents the top-class line of Naviop HMI solutions. It's **smart**, because it is **bundled with a separate DVI unit** (Sharp Video) seamlessly managing the displays' functionalities. Its name refers to the thinness and brightness of the crystal panel, a cleverly designed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



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.

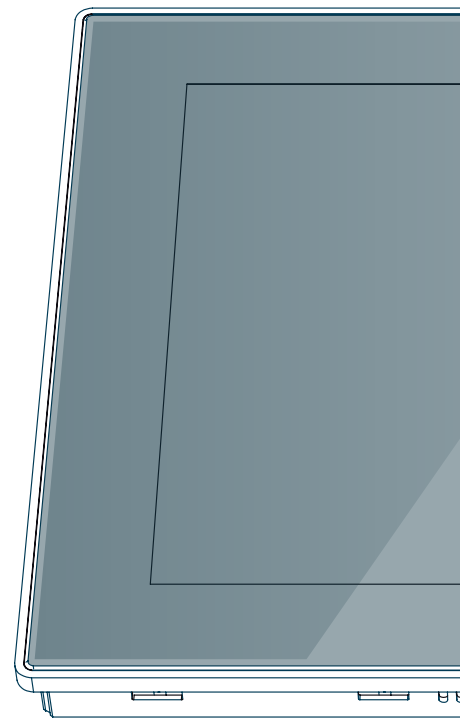
This Series

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.

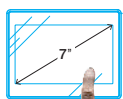
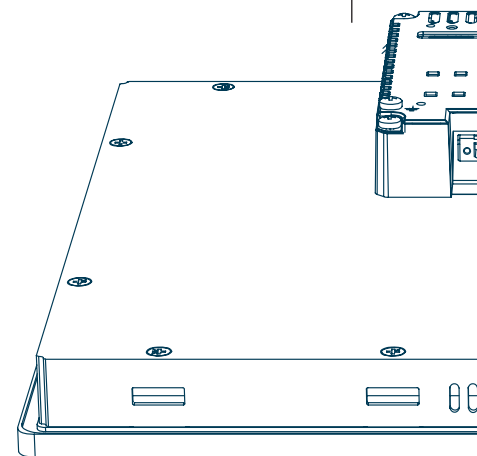
Genius Series (Polycarbonate)

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 systems displays are the ideal choice even for small systems.



Genius 15 polycarbonate operator panel



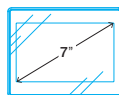
Genius 7G

4,3"



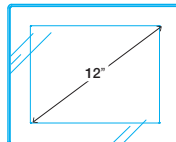
Genius 4P

7"



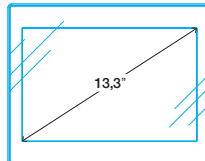
Genius 7P

12"



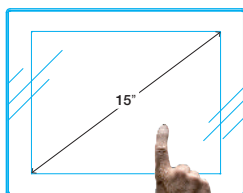
Genius 12P

13,3"

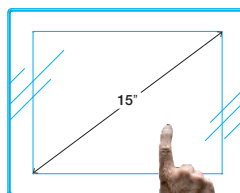


Genius 13P

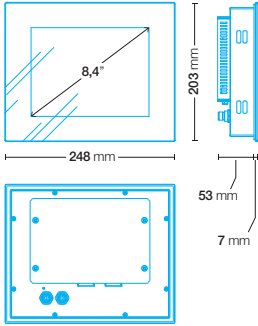
15"



Genius 15G



Genius 15P



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)

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

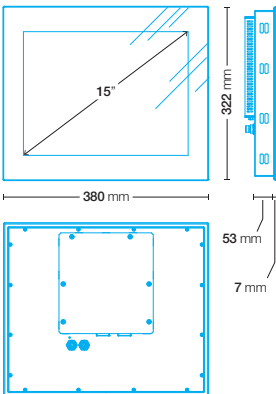
Code N-SMRTCYS8

Open features

Navio® Quality Control	✓
Software Expertise access	✓
Navio® R&D Access	✓
Navio® Graphic Interface	✓
Navio® Partners' Network Access	✓
Navio® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio® Communication World	✓

Accessories

Supply M12/5 poles F radial cable	C-28518
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)

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

Code N-SMRTCYS15

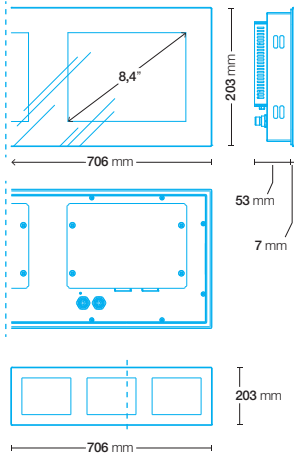
Open features

Navio® Quality Control	✓
Software Expertise access	✓
Navio® R&D Access	✓
Navio® Graphic Interface	✓
Navio® Partners' Network Access	✓
Navio® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio® Communication World	✓

Accessories

Supply M12/5 poles F radial cable	C-28518
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)

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

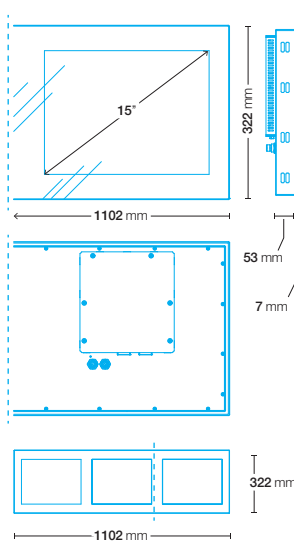
Code N-SMRTCRY24

Open features

Navio® Quality Control	✓
Software Expertise access	✓
Navio® R&D Access	✓
Navio® Graphic Interface	✓
Navio® Partners' Network Access	✓
Navio® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio® Communication World	✓

Accessories

Supply M12/5 poles F radial cable	C-28518
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



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)

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

Code N-SMRTCRY45

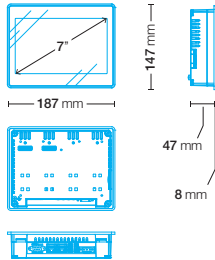
Open features

Navio® Quality Control	✓
Software Expertise access	✓
Navio® R&D Access	✓
Navio® Graphic Interface	✓
Navio® Partners' Network Access	✓
Navio® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio® Communication World	✓

Accessories

Supply M12/5 poles F radial cable	C-28518
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





Genius 7G

Top performance with outstanding 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

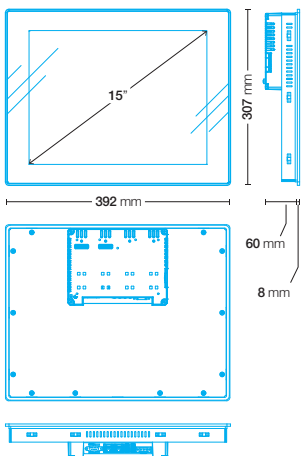
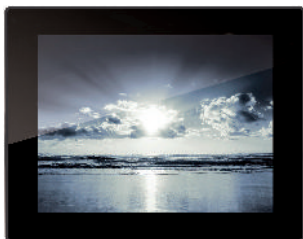
Code N-GENIUS7G

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Headed drop can	
DB9 F cable	C-28576
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
 Active 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

Code N-GENIUS15G

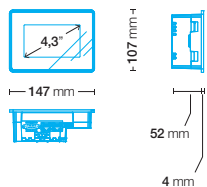
Open features

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

Accessories

Headed drop can	
DB9 F cable	C-28576
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:

Operative and storage humidity:	5 ÷ 85% RH (not condensing)
---------------------------------	-----------------------------

Protection class:

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

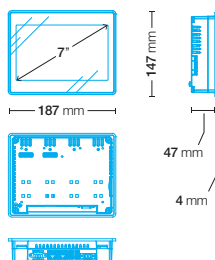
Code N-GENIUS4P

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
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 7P

State-of-the-art features and outstanding 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:

Operative and storage humidity:	5 ÷ 85% RH (not condensing)
---------------------------------	-----------------------------

Protection class:

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

Code N-GENIUS7P

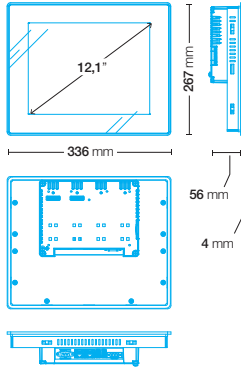
Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
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 12P

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

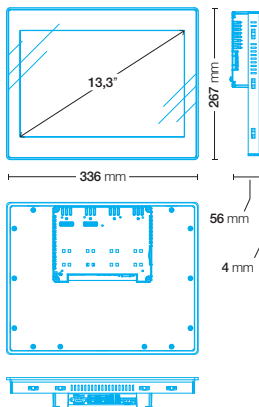
Code N-GENIUS12P

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
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

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

Code N-GENIUS13P

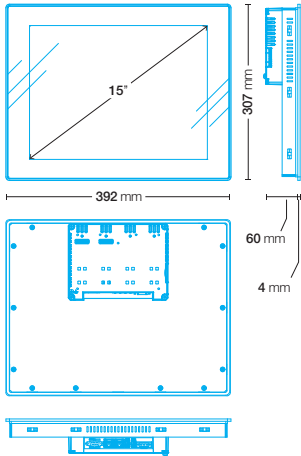
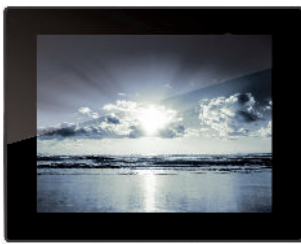
Open features

Naviop® Quality Control	✓
Software Expertise access	✓
Naviop® R&D Access	✓
Naviop® Graphic Interface	✓
Naviop® Partners' Network Access	✓
Naviop® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
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)
 -20°C ÷ +70°C

Storage temp.:

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

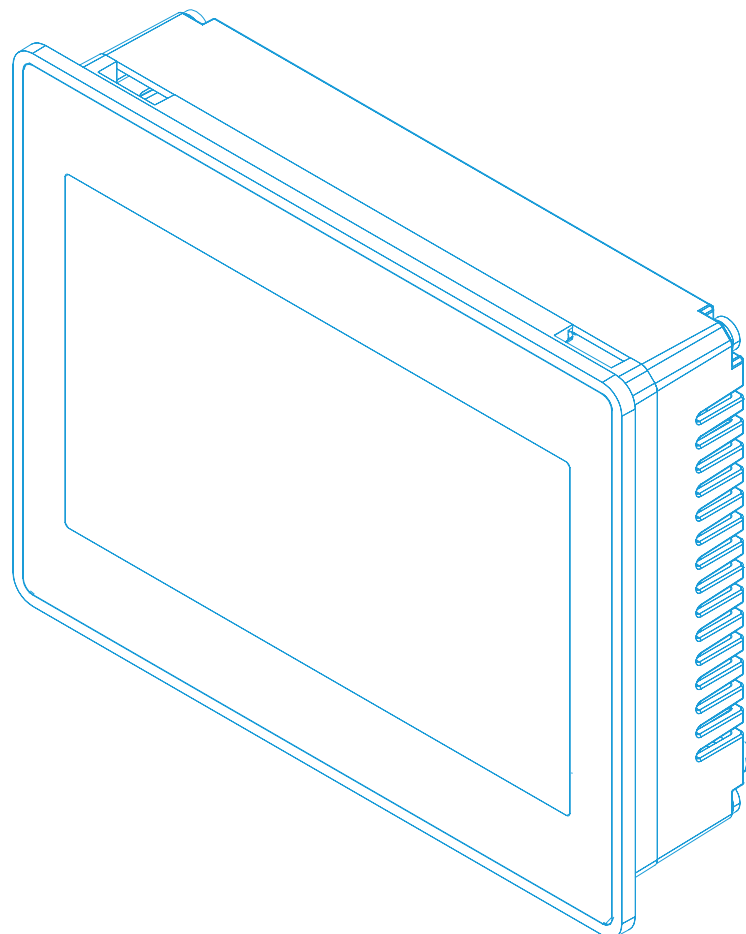
Code N-GENIUS15P

Open features

Navio® Quality Control	✓
Software Expertise access	✓
Navio® R&D Access	✓
Navio® Graphic Interface	✓
Navio® Partners' Network Access	✓
Navio® Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio® 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



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 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

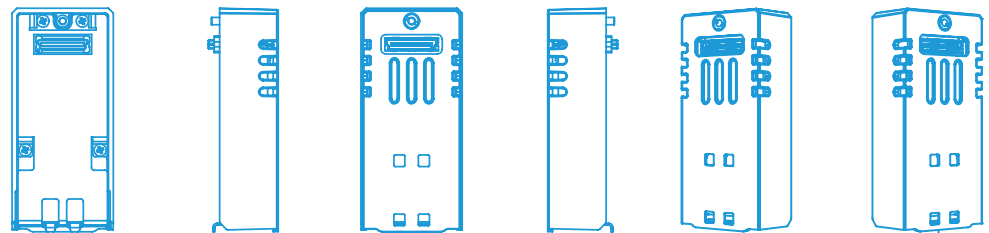
The T-BOX is born of our experience in protocol management: the best solution to safely dialogue with all on-board instruments. It's developed to interface with the most widespread protocols, based on **NMEA 0183, NMEA 2000, Canbus 2.0B, J1939, Serial 232, 422, 485, Ethernet, Modbus TCP** and many more 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.



SERIAL

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

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

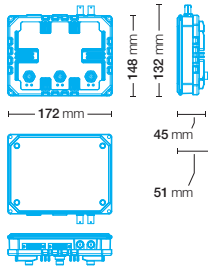
ETHERNET

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.

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 link
 (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

Code N-NA20

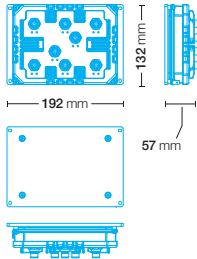
Open features

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

Accessories

Supply M12/5 poles	
M radial cable	C-28518
Ethernet int. M12/8 poles	
F radial cable	C-22227
DVI cable	C-DVI2M





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

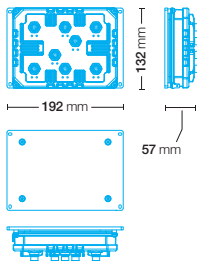
Code N-NA04-0002

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Headed CAN M12-8 poles	
F radial 0.5m drop	C-28582
F radial 2m drop	C-28572
Supply M12/8 poles	
F radial cable	C-28515
Ethernet int. M12/8 poles	
F radial cable	C-22227
RS232/485 serial M12-8 poles F radial cable	C-20663



T-Box N2000

This product combines the most huge functionalities of the standard T-Box unit with the capacity to support the NMEA2000 communication protocols to interface with almost all on-board systems. The product can support the most widely used communication standards to interface with almost all board systems.

Memory	
Flash Disk:	512 MByte
DDRAM Memory:	128 MByte
Interfaces	
NMEA2000:	1 port
Isolated, sw configurable:	2 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

Code N-NA04-0002-N2000

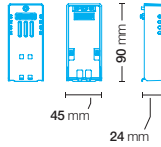
Open features

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

Accessories

Headed CAN M12-8 poles	
F radial 0.5m drop	C-28582
F radial 2m drop	C-28572
Supply M12/8 poles	
F radial cable	C-28515
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

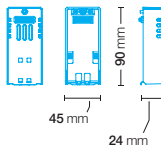
Code N-FOS01

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Headed drop CAN DB9 F cable	C-28576
-----------------------------	---------



Fos N2000

FOS 01 is an 'all in one' Nmea2000 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. The Nmea2000 version embeds a full Nmea2000 protocol. You can reach Nmea2000 world through its DB9 male connector interface.

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

Code N-FOS01-N2000

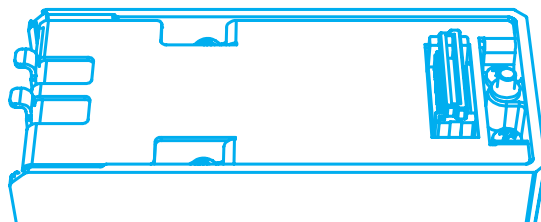
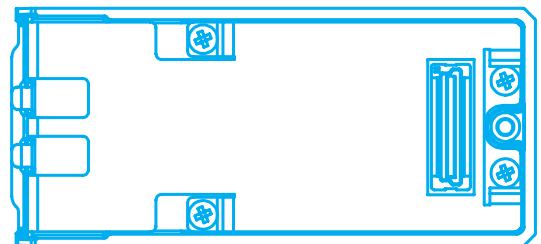
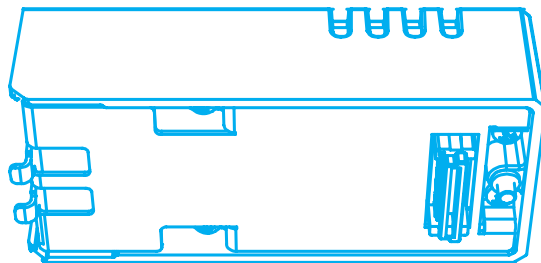
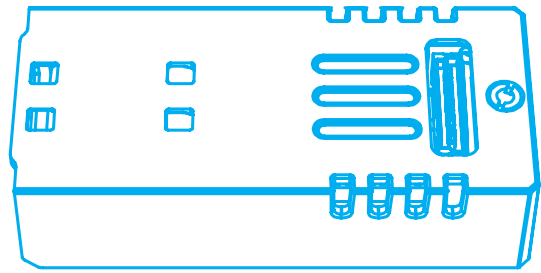
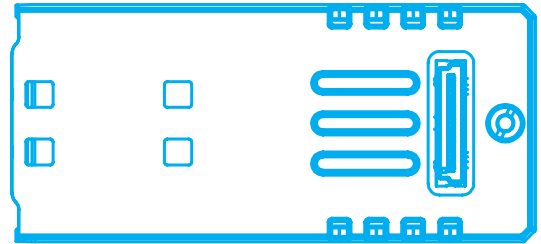
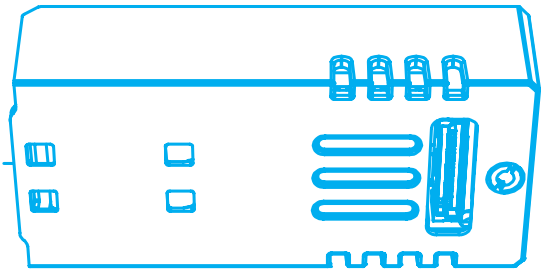
Open features

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

Accessories

Headed drop CAN DB9 F cable	C-28576
-----------------------------	---------





The missing link in your open project: a reliable and clever solution for power management.



Power distribution

Egon Series

Naviop Egon is the brand new power distribution board able to supply power to the whole boat. **It enables to eliminate the electrical panel and to manage the lines through a compact and affordable power distribution system.** reducing the cables and considerably cutting down costs and time of wiring.

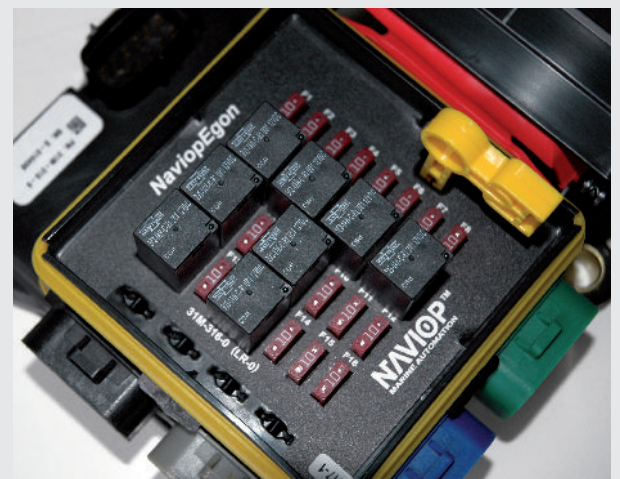
As a single and cumbersome electrical panel is not necessary anymore, it is possible to delocalize the power distribution system to better use rooms available on-board.

Waterproof to high pressure spraying (IP66), Egon is designed and manufactured with robust features such as a heavy-duty housing, silicon and Gortex gasketing, and protective conformal coated electronics.

Based on proven and patented technology it is suited for the most demanding marine applications.



EGON is a state-of-the-art electrical distribution module for DC powered vehicles, available as Egon, Egon + and Egon + Power.



Electrics made simple. **Power up.**

The smart way to power up your boat: Egon and Nova are indeed a small and big revolution. These devices are built to redesign the power distribution system, with the performance, reliability and affordability you can always expect from Naviop.

The Egon unit communicates over a CAN bus using the SAE J1939 protocol and it is an excellent solution to control and monitor circuits up to 20Amps at 12Vdc or up to 10Amps at 24Vdc. By communicating with other devices on the CAN bus network, it can be part of a multiplexing system in order to eliminate the need of individual connections between switches and loads. Egon is rated at 200 Amps, with individual outputs 12Vdc or 24Vdc rated up to 30Amps with fuses. Egon controls relays via direction of J1939 CAN bus and reports every second the status of relays and fuses to the J1939 CAN bus, indicating any blown fuse or failed relay. The unit is equipped with 8 outputs controlled via relays and 8 outputs in which the fuse can be only monitored.

Nova Series

The relay CANBUS interface controller card Nova has been designed specifically for use in marine environments and allows you to

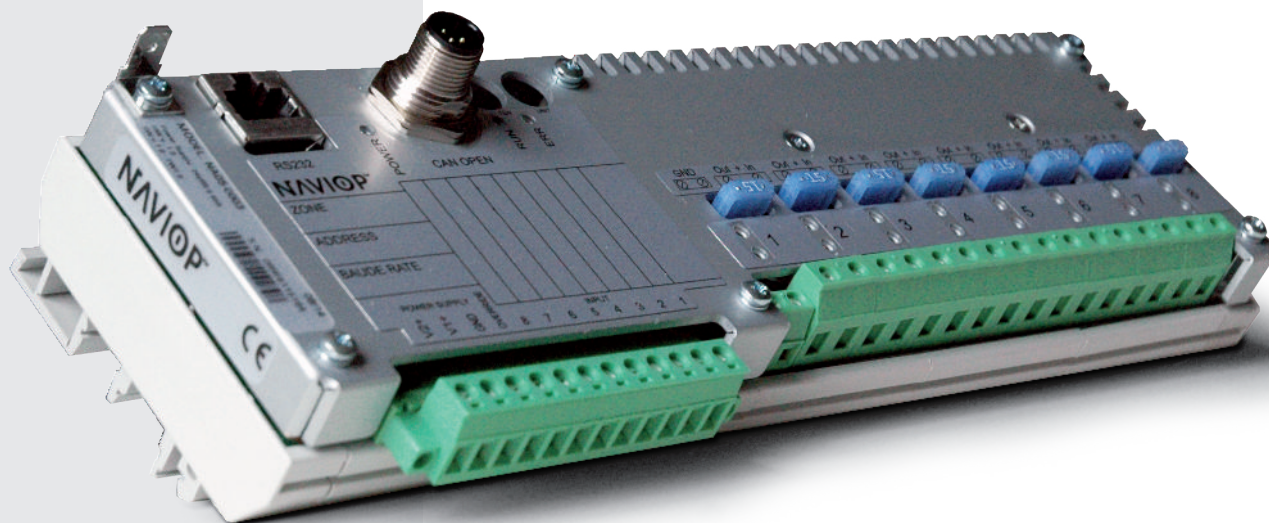
control up to 8 separate circuits, each of them protected by a pull-out fuse. You can set each channel in toggle or pulse mode; output current is 8 Ampere, while the card can tolerate up to a max 50-Ampere load. There is also a housing for an auxiliary fuse (supplied).

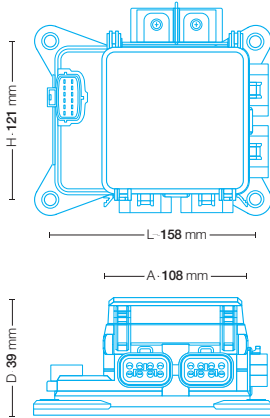
- 1 CANBUS port** to connect to the monitoring and control system through M12 connector;
- 5 Lumberg-type poles** for fast and solid wiring;
- 1 RS-232 port** for card setting;
- 8 digital inputs.**

Inputs and preset operation modes can also be selected by means of two rotary switches.

Two separate 24Vdc inputs ensure redundant power supply for on-board electronics.

The card features an override to allow you to control the privileged outputs (outputs 1 and 4) through pushbuttons in case of malfunctions in the control electronics.





Egon

EGON is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relay channels and 16 fused channels. It enables to eliminate the electrical panel and supply power to all the boat.

Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vdc
 Power supply (range): 9-32 Vdc
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 16
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A @12/24Vdc
 with relay: 20A @12Vdc
 10A @12Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030 (RDEC2002), Section 6.16
 bombardment test: 24 hour of dust, sand and gravel
 salt fog: subject to 96 hour period of salt fog per ASTM B117-94
 Protection class: IP66

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

Housing

Type: UL-rated 94V-0 thermoplastic

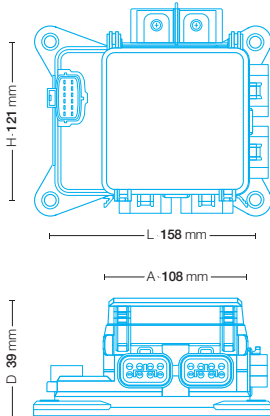
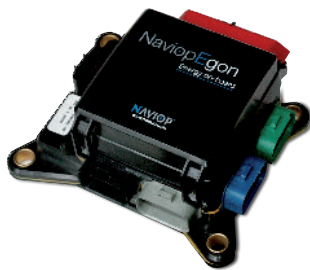
Code 31M-000-2

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Cable	C-L28501
-------	----------



Egon +

EGON is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relay channels and 16 fused channels. The 8 relay channels have bypass on the output connector to manually turn on/off the load.

Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vdc
 Power supply (range): 9-32 Vdc
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 16
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A @12/24Vdc
 with relay: 20A @12Vdc
 10A @12Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030 (RDEC2002), Section 6.16
 Bombardment test: 24 hour of dust, sand and gravel
 salt fog: subject to 96 our period of salt fog per ASTM B117-94
 Protection class: IP66

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

Housing

Type: UL-rated 94V-0 thermoplastic

Code BUSS-1851-2M

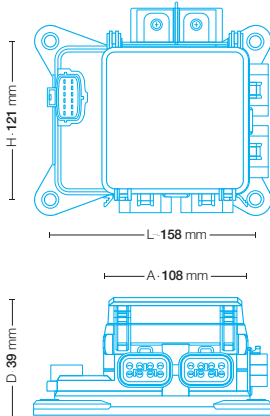
Open features

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

Accessories

Cable	C-28576
-------	---------





Egon + Power

EGON is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relay channels and 16 fused channels. The 8 relay channels have bypass on the output connector to manually turn on/off the load.

Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vdc
 Power supply (range): 9-32 Vdc
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 8
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A @12/24Vdc
 with relay: 30A @12Vdc
 15A @12Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030
 Bombardment test: 24 hour of dust, sand and gravel subject to 96 our period of salt fog per ASTM B117-94
 salt fog:
 Protection class: IP66

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

Housing

Type: UL-rated 94V-0 thermoplastic

Code BUSS-1852-1M

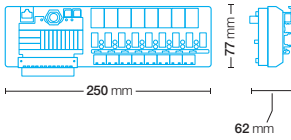
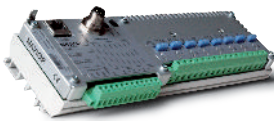
Open features

Navio [®] Quality Control	✓
Software Expertise access	✓
Navio [®] R&D Access	✓
Navio [®] Graphic Interface	✓
Navio [®] Partners' Network Access	✓
Navio [®] Easy S.O.S.	✓
Customer Care <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Navio [®] Communication World	✓

Accessories

Headed CAN M12-8 poles	
F radial 0.5m drop	C-28582
F radial 2m drop	C-28572
Supply M12/8 poles	
F radial cable	C-28515
Ethernet int. M12/8 poles	
F radial cable	C-22227
RS232/485 serial M12-8 poles F radial cable	C-20663





Nova

NOVA is a relay board designed specifically for use in marine environments and enables to control up to 8 separate circuits, each of them being protected by a pull-out fuse. CAN connection to the monitoring and control system is available.

Indicators

General indicator LEDs: 3
Relay control indicators: 8 (1 x channel)
Fuses indicators: 8 (1 x channel)

Interfaces

CANOpen port: 1

Controller

CPU: TMBC003

Ratings

Power supply (nom): 18-32 Vdc
Relay channels: 8
Current consumption: 0.65A @24V (all relays ON)
Fuse: 15A Relay piloting: 24Vdc (+/- 25%)
60mA per relay (typ.)
Max load (1 channel): 10A (continuous)
Max total load: 50A @ 50°C
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C

Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP20

Dimensions

Faceplate (LxH): 250 x 77 mm
Depth (D): 62 mm

Housing

Type: Plastic case with aluminium top

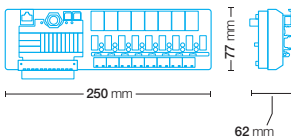
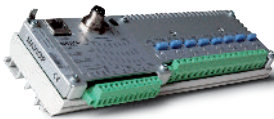
Code NA05-0002

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Headed CAN M12-5	
Poles female radial drop	C-28582
Ethernet int. M12/8	
poles F radial cable	C-22227
T-BOX PLC unit	NA04-0002



Nova +

NOVA is a mosfet board designed specifically for use in marine environments and enables to control up to 8 separate circuits, each of them being protected by a pull-out fuse. CAN connection to the monitoring and control system is available. It enables dimming of lights onboard.

Indicators

General indicator LEDs: 3
Relay control indicators: 8 (1 x channel)
Fuses indicators: 8 (1 x channel)

Interfaces

CANOpen port: 1

Controller

CPU: TMBC003

Ratings

Power supply (nom): 18-32 Vdc
Relay channels: 8
Current consumption: 0.65A @24V (all relays ON)
Fuse: 15A
Relay piloting: 24Vdc (+/- 25%)
60mA per relay (typ.)
Max load (1 channel): 10A (continuous)
Max total load: 50A @ 50°C
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C

Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP20

Dimensions

Faceplate (LxH): 250 x 77 mm
Depth (D): 62 mm

Housing

Type: Plastic case with aluminium top

Code NA05-0002-PL

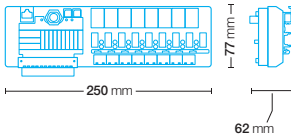
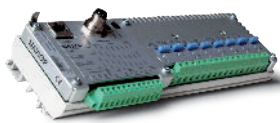
Open features

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

Accessories

Headed CAN M12-5	
Poles female radial drop	C-28582
Ethernet int. M12/8	
poles F radial cable	C-22227
T-BOX PLC unit	NA04-0002





Nova + Special

NOVA is a relay board designed specifically for use in marine environments and enables to control up to 8 separate circuits, each of them being protected by a pull-out fuse. CAN connection to the monitoring and control system is available. It enables dimming of lights onboard. Compatible with old Naviop system versions.

Indicators

General indicator LEDs: 3
 Relay control indicators: 8 (1 x channel)
 Fuses indicators: 8 (1 x channel)

Interfaces

CANOpen port: 1

Controller

CPU: TMBC003

Ratings

Power supply (nom): 18-32 Vdc
 Relay channels: 8
 Current consumption: 0.65A @24V (all relays ON)
 Fuse: 15A
 Relay piloting: 24Vdc (+/- 25%)
 60mA per relay (typ.)
 Max load (1 channel): 10A (continuous)
 Max total load: 50A @ 50°C
 Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C

Operative and storage humidity: 5 ÷ 85% RH (not condensing)
 Protection class: IP20

Dimensions

Faceplate (LxH): 250 x 77 mm
 Depth (D): 62 mm

Housing

Type: Plastic case with aluminium top

Code NA05-0002-SP

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 <i>Advanced Access</i>	✓
Service Point <i>Advanced Access</i>	✓
Naviop® Communication World	✓

Accessories

Headed CAN M12-5	
Poles female radial drop	C-28582
Ethernet int. M12/8	
poles F radial cable	C-22227
T-BOX PLC unit	NA04-0002

