

nke
MARINE ELECTRONICS

**SIMPLY
POWERFUL**



© V. Curutchet / Team Sodebo

Thomas Coville,
 Skipper Ultim Sodebo
 Solo Cross-Atlantic Record
 Solo Around The World Record



*« Even with a crew during
 our Jules Verne Trophy 2020 attempt,
 we trusted the autopilot nke »*

Thomas Coville

nke

MARINE ELECTRONICS

For more than 40 years, nke has been developing innovative instruments and technologies dedicated to navigation. Whatever your type of navigation, would it be racing or cruising, solo or with a crew, nke instruments are designed to meet all levels of requirements and needs. Performance, reliability, ease of use and safety remain our main objectives throughout the process - from research and development to services and information.

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SIMPLE

Our main objective is to make your job easier. At sea, you need to stay focused on your environment, your settings, your safety and your crew safety. In order to free your mind, we work on the simplicity of use and interaction with your instruments, especially with the autopilot.

EFFICIENT

It is important, when the helm is entrusted to the autopilot, that man does not worry about its trajectory or its control. Our priority is to make our instruments as reliable and efficient as possible.

SERVICE

Our team is at your service for any technical advice, any question, and helps you to make diagnoses during your remote installation. We ship all necessary instruments all over the world.

Blue Water



> Nicolas BOIDEVEZI > Eric BROSSIER / France PINCZON DU SEL > Sébastien ROUBINET



Cruising



> Camille CARRÉE > Jean-François EEMAN > Cédric FARON



> Paul FRAISSE > François GIRARD > Philippe ROUSSEL

COMMITMENTS FOR STRONG AND LONG-TERM PARTNERSHIPS

We share our passion, through various partnerships, with racing teams, cruising boats and even some unusual challenges.

We have been touched by these women and men and their strong commitment to take-on challenges, for either sport or adventure.

Our commitment means that nke supports every step of their project and contributes to the awareness of sailing, globally and locally.

Performance



> Thomas COVILLE > Michel DESJOYEUX > Benjamin DUTREUX



> Mickael HENNESSY > Gaël LE CLEACH > Stéphane LE DIRAISON



> Miranda MERRON > Yoann RICHOMME > Jörg RIECHERS



> Sébastien ROGUES > Damien SEGUIN > Thibaut VAUCHEL

PARTNERS



MULTIFUNCTION DISPLAYS

Accurate Data, instantly

Simple to use, waterproof, may be mounted and used both inside and outside.



||| Multidisplay

On this 7" HD color screen interface, several pages are available such as the "Tactic" and the "Start" pages which display the key information for the helmsman and the tactician, outside the boat. Graphic logs of wind data - speed and direction - can also be displayed and are an asset to anticipate wind shifts. Connected to our AIS receiver, you'll be able to monitor your competitors on the Multidisplay.

The Multidisplay can be used in landscape or portrait mode. The landscape mode allows you to have preset key information shown at all times. It is possible to set up your own pages and create up to 4 race configurations that shows only the information you've selected to view. This configuration is done using the PAD.

In terms of installation, it can be used in landscape or portrait mode (and also as a repeater at the foot of the mast as well). Depending on the size of your boats, you can select one or several information to be displayed and readable from a distance.



III Pad

The Pad Display is a separate keyboard control pad that allows to configure and change settings of the Multidisplay. They also allow to control the different displays and to access menus. The pad Pilot can control the autopilot.

PAD PILOT

With its "PAGE" and "OK" buttons, and arrow keys, you can change the display, navigate through menus, perform sensor calibrations and adjust the autopilot settings. The other 6 buttons are dedicated to controlling the autopilot. The MOB key, common to all our controls, is used to trigger an alarm in case of a man overboard.

PAD DISPLAY

This wired remote control includes the A-B-C-D shortcut buttons for direct access to pre-programmed configurations. You can setup the information you want to be displayed using the shortcut and change from 1 display setting to another for example when racing. The PAD also allows access to the various menus.



III Multigraphic

A single control unit with display to manage everything on board: control the autopilot, access navigation data and manage the AIS function.

It is possible to display from 1 to 6 data in analog or digital format.

The AIS mode in conjunction with either a receiver or a transmitter.

- Page displayed on the the Multigraphic
- List of targets
- List of dangerous targets
- Management of collision alarms

When mounted outside, the Multigraphic display can managed AIS alarms and warn you of collision risks without you having to go down inside to the chart table.

AUTOPILOT

The nke autopilot range has become a reference in its category. This is evidenced by the rate of equipment in racing classes such as IMOCA, Class40, Mini 650 or even the IRC rating.

An increasingly growing number of individuals looking for performance and reliability are also using this autopilot while cruising.



||| GyroPilot 2

The GyroPilot 2 autopilot is designed to keep your boat on course in all weather conditions. Both robust and efficient, it is recognized for the accuracy of its calculations. It guarantees unparalleled steering quality.

The GyroPilot 2 has proven its efficiency during numerous transatlantic races. The accuracy of the calculations and their reliability make it an indispensable and trust worthy autopilot partner.



||| Rudder angle sensor

The nke sensor, placed on the rudder shaft quadrant, measures the rudder angle to 3/10th of a degree in order to transmit the most accurate information. It is a necessary sensor that works with the autopilot. It can handle over 5 million cycles and will last for years!

||| Hydraulic drive unit

The device includes a reversible pump and a linear cylinder. Equipped with this system, nke guarantees you a firm hold of the helm in all conditions, optimum performance and efficiency.



||| Remote controls: 3 models

Light and ergonomic, the wireless remote control for the autopilot combines autonomy and safety for its bearer.

AUTOPILOT REMOTE

Whether you are at the helm, next to the mast or at the front of your boat, this remote allows you to control the autopilot.

DISPLAY REMOTE

This remote control allows you to change the channels on the display, calibrate or start the stopwatch.

CREW REMOTE

Ideal for crew members, this remote control automatically detects if a man has fallen overboard and allows you to trigger the MOB detection system automatically.

||| Radio receiver

In combination with the autopilot, display and crew remote controls, it ensures you and your crew's safety as it can manage up to 8 transmitters simultaneously.



||| Joystick

The joystick allows you to have a direct control on the position of the helm.



SENSORS

nke has developed a wide range of high quality specific sensors to meet the needs of all boats.

WIND

||| Carbowind HR

With high frequencies and high resolution wind measurement, this Carbowind mast head unit has become a world class reference. The long rigid carbon pole allows the sensor to be positioned more than one meter above the mast and therefore away from sail disturbances. Its design makes it the most responsive sensor on the market, even used by our competitors !

||| Aluwind HR

This mast head unit is using the same precision electronics than the Carbowind HR, with a slightly shorter pole made in aluminium. It is a good alternative with great price/performance ratio. Originally designed for the mini 6.50 class, it equips boat up to 10m (33 ft).

||| Wind sensor HR

This wind sensor HR is highly accurate for both angle and speed measurements: less than 1° for wind angle and less than 1% for wind speed linearity. It measures wind angle through 360° and its sensitivity allows wind speed measurement below 2 knots.

||| Standard wind sensor

The wind sensor measures the wind angle through 360° and is easy to install on the mast head and an offset can be applied to adjust the alignment to the boats centerline.

||| Apparent wind monitor

Improves boat steering by denoising the wind speed data. It provides a real time clean wind information

||| Mast angle sensor

Essential for rotating masts and fundamental in the wind calculation. It comes either in inductive or mechanical version.

COMPASS

||| 9X Compass

The 9X compass is a high precision sensor comparable to an inertial measurement unit (IMU), merging data from 3 accelerometers, 3 gyrometers and 3 magnetometers, all in real time. It provides true 3D spatial orientation: heading, heel/roll and pitch.

||| Fluxgate Compass

This compass delivers the magnetic heading of the boat. It has to be mounted away from magnetic disturbances and is connected to the nke TOPLINE bus of your installation. This compass provides you with the essential basis for calculating the real wind direction thanks to a self-compensation curve which allows you to obtain an accurate heading.

GPS

||| High Frequency GPS

The HF GPS is a professional system used to inform the autopilot and help to calculate true wind for the onboard tactician.

SPEED AND DEPTH SENSORS

||| Ultrasonic speed sensor

For speed, we offer the ultrasonic speed sensor which is a flush installed device and is linear in a range of 0-50 knots. Thanks to its technology the sensor is not affected by any parasites.

||| Electromagnetic speed sensor

This sensor provides information on the speed and distance traveled by the boat as well as the water temperature. It provides very accurate information under all conditions and has no moving parts.

||| Paddle wheel speed sensor

This classic sensor offers a very accurate surface speed measurement.

||| Depth sounder

This 200kHz sensor will measure depth up to 120m / 390 ft. It can be calibrated from the surface of the water or from the keel. Retractable in its hull pass-through, it is easily winterized.

LSI

||| LSI = LOG AND SOUNDER INTERFACE

The log / sounder interface allows the connection of the sensors to the nke TOPLINE bus of your installation by converting analog signals into digital ones. This measuring instrument delivers the following information: speed, distance covered by the boat, depth, water temperature and the voltage delivered on the system.

||| Dual LSI = DUAL LOG AND SOUNDER INTERFACE

The dual log and sounder interface is designed for use on wide hull boats so that one of the two speedometers is always immersed, regardless of the boat's heel.

INTERFACES

With the diversity of equipment on board, the interfaces allows our system to communicate with the outside world.



WiFi USB Box

The Wifi USB Box allows to multiplex the bus data - wind, speed, etc. - and data from the NMEA input into applications. It broadcasts data such as heading and WPT distance on the bus to be displayed onto the multifunction displays.



Ethernet Box

The Ethernet Box allows the multiplexing of bus data - wind, speed, etc. - and data from the NMEA input to a computer or onboard network via an Ethernet cable. It broadcasts data such as heading and WPT distance on the bus to be displayed on the multifunction displays.



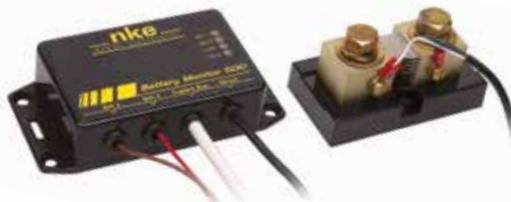
Analog Monitor 4X

This interface allows to create and publish on the nke TOPLINE Bus, data of any third party analog voltage type sensor.



HR Barometer

The Baro HR is an instantaneous atmospheric pressure sensor. Compact and accurate, this instrument will become indispensable for your weather forecast.



Battery Monitor 500

In order to adapt to the increasingly powerful alternators installed on boats, nke proposes a sensor which monitors the batteries with precision. It can measure instant loads up to 500 A.



Forestay Load Sensor

This sensor measures the force. For its installation, it does not require a dismantling of the rigging. The reading of the tension is done on any type of displays.



© Antoine Duironquoy

PROCESSOR



HR Processor

The HR Processor allows an immediate start with the expected performance. The main settings are accessible directly on the Multigraphic and on the Multidisplay.

This high-end driver is associated with an attitude control unit for responsive heading and windage - correcting the apparent wind created by the boat's accelerations. The boat is then less braked and electrical consumption is reduced by more than 40%.

The Processor is a wind calculator integrating true wind tables, performance polars and noise reduction. The HR Processor is recognized as the performance driver.



3D Sensor

The 3D Sensor is a high-precision inertial measurement unit (IMU) that measures the boat's movements in real time and calculates its orientation. It delivers the magnetic heading of the boat, the roll, the pitch, the accelerations and the rotation speed. It is connected to the HR Processor.

PACKS

Our Cruising, Regatta, Offshore racing and HR offers are adapted to all your needs and meet your expectations.

These offers are designed around the autopilot to offer you the best comfort and ensure your safety.

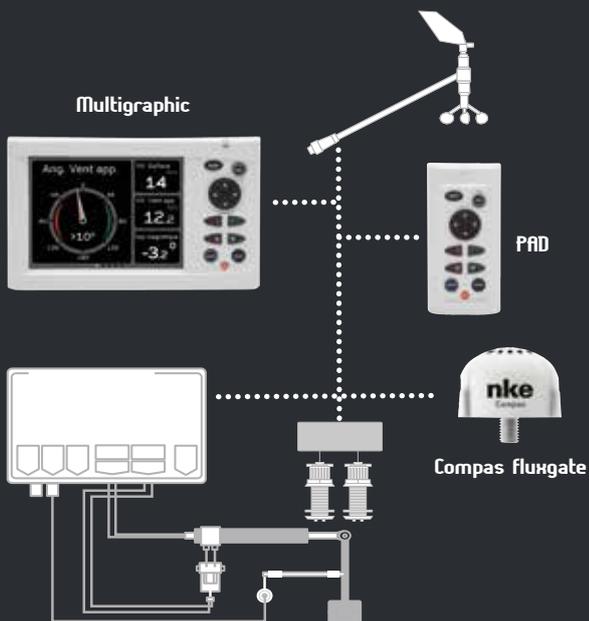


© Antoine Dupont/Quoy



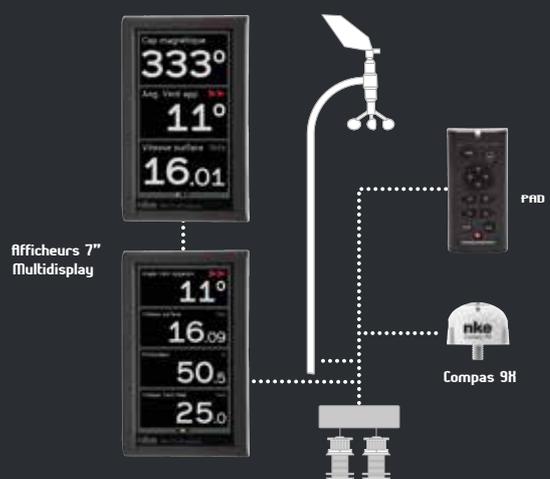
CRUISING PACK

Our cruising system is built around the autopilot to bring the best comfort and safety. The gyrometer integrated in the Gyropilot's processor ensures quick response and course stability.



REGATTA PACK

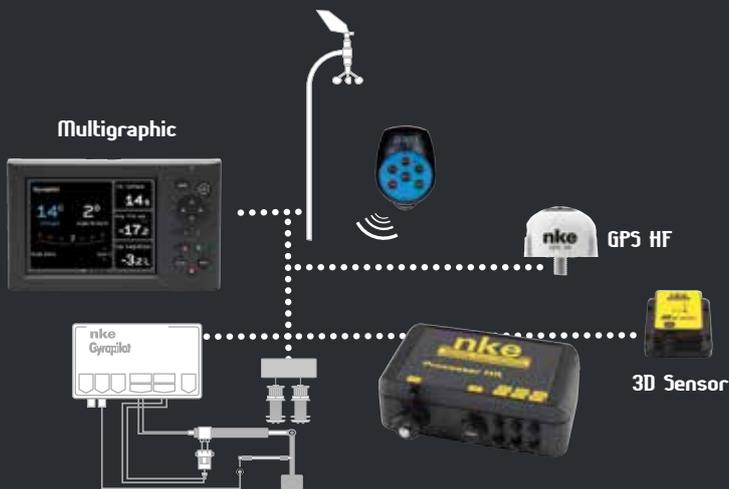
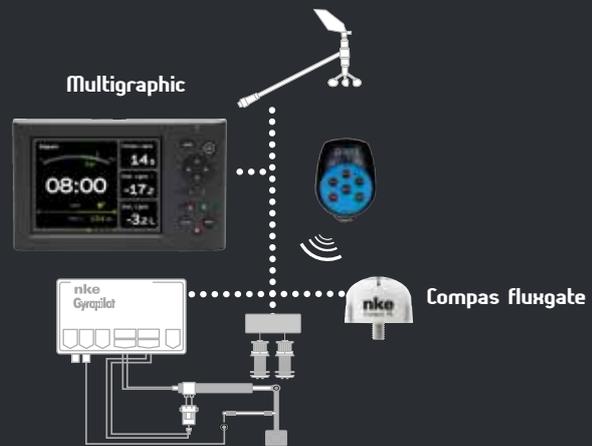
You can go further by opting for a HR wind sensor, a 9X compass and an Ultrasonic speed. These high-resolution sensors offer you precise and responsive data.





OFFSHORE RACING PACK

This pack delivers high performance as required for an offshore race. The autopilot includes true wind mode and a remote control.



OFFSHORE RACING HR AUTOPILOT PACK

The wind minded HR Processor acquires data at 25 Hz and provides accurate noise-free wind figures adjusted for the boats' acceleration thanks to the 3D sensor. The Gyropilot works better and with less energy consumption. The HR pilot includes advanced modes known as "SUPER".

nke BUS

SUGGESTIONS FOR SYSTEM CONFIGURATION

Easy installation

The nke three wires cable is easy to install. With no connector it can be run in any location.

Upgradable

Adding instruments to an existing system is a piece of cake! Any component can be added to the system by simple connection to the bus anywhere.

A 'key system' (standard sensors and a multifunction display) can be expanded to a full system following your needs (GPS, specific sensors, autopilot, etc.) and your performance requirements (HR sensors, etc.)

Robust

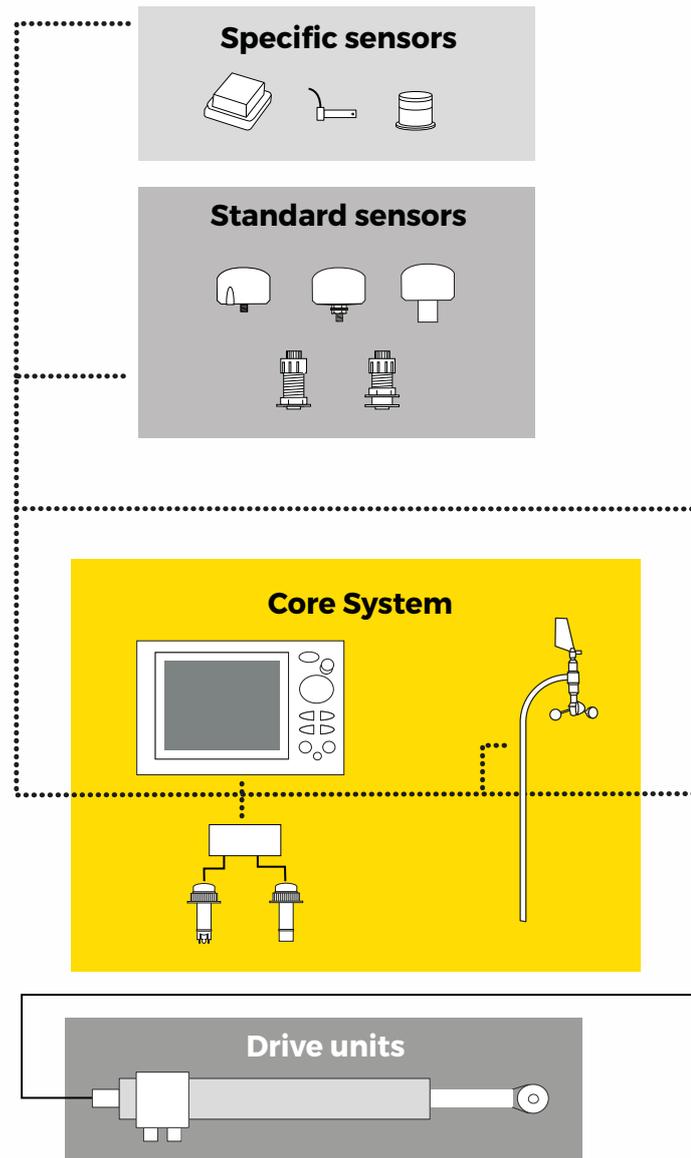
No central unit. Any Multifunction Display can process data on the bus. If the master display happens to fail, just choose another one as the master.

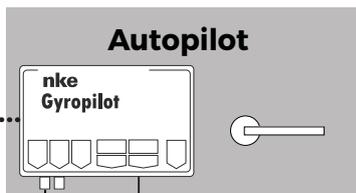
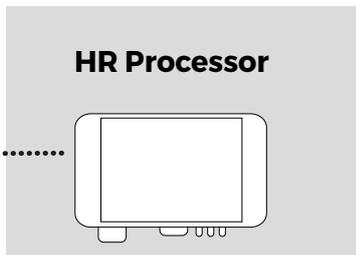
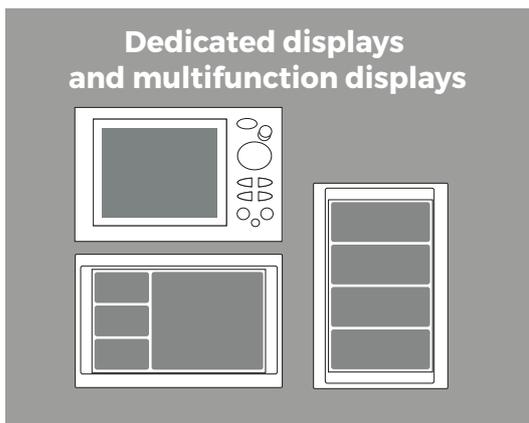
Lightweight

In some cases we use avionic cables with a weight of 17 g/m. We can also provide a quotation for weight and power consumption subject to request for a specific system installation.



© David Wallace





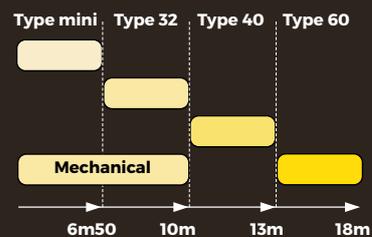
Wireless remote control



Joystick (Tiller)

Hydraulic ram

nke has chosen the hydraulic solution (for boats over 30 feet) for its recognised reliability, power and fast operation. The system includes a reversing pump and a linear ram for extended reliable service. With this system nke ensures firm steering in all conditions with optimum efficiency. The Gyropilot can also power any hydraulic pump drive unit at constant run (CRP), generally used on bigger boats.



> THE MOST RELIABLE DRIVE UNIT

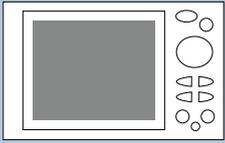
The power is calculated to match the pressure on the rudders. Rudder surface, compensation and rudder end stop angles are required to make the calculation.

> OTHER POWER UNITS

The Gyropilot processor is compatible with many other drive units and rudder angle sensors.

You can choose a mechanical ram, a rotary drive or a wheel drive. If the drive can be disengaged, we recommend that a nke specialist is consulted to help you define the right solution and any options including the choice of rudder feedback.

DISPLAYS



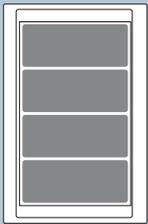
> MULTIGRAPHIC

- > Dimensions [H x L x D]: 118 x 192 x 23 mm
- > Consumption: 90 mA without backlighting and 150 mA with backlighting.
- > IP Protection rate: IP67
- > Vision angle: Horizontal > 160° - vertical > 120°
- > Weight: 750 g (without cable)
- > Cable: 5 m - 40 g/m



> MULTIDISPLAY 7" (LANDSCAPE MODE)

- > Dimensions [H x L x D]: 118 x 192 x 23 mm
- > Consumption: 90 mA without backlighting and 150 mA with backlighting.
- > IP Protection rate: IP67
- > Vision angle: Horizontal > 160° - vertical > 120°
- > Weight: 780 g (without cable)
- > Cable: 5 m - 40 g/m



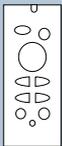
> MULTIDISPLAY 7" (PORTRAIT MODE)

- > Dimensions [H x L x D]: 192 x 118 x 23 mm
- > Consumption: 90 mA without backlighting and 150 mA with backlighting.
- > IP Protection rate: IP67
- > Vision angle: Horizontal > 160° - vertical > 120°
- > Weight: 780 g (without cable)
- > Cable: 5 m - 40 g/m



> PAD DISPLAY

- > Dimensions [H x L x D]: 118 x 58 x 23,3 mm
- > Consumption: 50 mA
- > IP Protection rate: IP67
- > Weight: 190 g (without cable)
- > Cable: 6 m - 40 g/m



> PAD PILOT

- > Dimensions [H x L x D]: 118 x 58 x 23,3 mm
- > Consumption: 50 mA
- > IP Protection rate: IP67
- > Weight: 190 g (without cable)
- > Cable: 6 m - 40 g/m

COMPASSES AND GPS



> 9X COMPASS

- > Dimensions (Ø x H): 78 x 60 mm
- > Consumption: 25 mA
- > Resolution: 0.01°
- > IP Protection rate: IP67
- > Weight: 200 g (without cable)
- > Cable: 6 m - 40 g/m



FLUXGATE COMPASSES

- > Dimensions (Ø x H): 70 x 41,8 mm
- > Consumption: 25 mA
- > Resolution: 1°
- > Weight: 200 g (without cable)
- > Cable length: 6 m



HIGH FREQUENCY GPS

- > Dimensions (Ø x H): 72 x 50 mm
- > Type GPS: 65 Channels
- > Max. power: 600 mW
- > Max. data acquisition rate: 20 Hz
- > Position accuracy: 2,5 m CEP
- > Protocol: Topline + NMEA0183
- > Max. consumption: 50 mA
- > Weight: 150 g (without cable)
- > Cable length: 10 m

WIND SENSORS



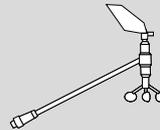
> CARBOWIND HR

- > Consumption: 25 mA
- > Angle resolution: 0.1°
- > Height of carbon arm: 110 cm
- > Carbon tube: External Ø22 mm Internal Ø18
- > Weight: 600 g
- > Avionic cable: L 25 m (#90-60-381) L 35 m (#90-60-351). Weight: 17 g/m.



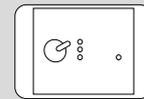
> ALUWIND HR

- > Consumption: 25 mA
- > Angle resolution: 1°
- > Height of carbon arm: 70 cm
- > Carbon tube: External Ø20 mm Internal Ø18
- > Weight: 600 g
- > Cable: L 25 m (#90-60-381) L 35 m (#90-60-351). Weight: 17 g/m.



> STANDARD AND HR WIND SENSOR

- > Consumption: 25 mA
- > Angle resolution: 1° (0.1° en HR)
- > Weight: Sensor head: 180 g
- > Mounting plate and bracket: 160 g
- > Cable: L 25 m (#90-60-509) L 35 m (#90-60-562). Weight: 34 g/m.



> APPARENT WIND MONITOR

- > Dimensions [H x L x P]: 90 x 160 x 50 mm
- > Consumption: 65 mA
- > IP Protection rate: IP54
- > Weight: 430 g (without cable)
- > Cable: 6 m - 40 g/m

SPEED AND DEPTH SENSORS



> ULTRASONIC SPEED SENSOR

- > 2 metres cable featuring moulded connector for the sensor
- > IP Protection rate for the interface box: IP54
- > 4 metres cable featuring moulded connector for the interface box.
- > Speed measurement range: 0 to 35 knots.
- > Temp. measure range: 0°C to +50°
- > Weight: 600 g (with cable)
- > Thru-hull housing (#90-60-221) : Internal Ø 31 mm



> ELECTROMAGNETIC SPEED SENSOR

- > Speed measurement range: 0 to 50 nœuds
- > Temp. measure range: 0°C to +50°C
- > Weight: 300 g (avec câble)
- > Câble de 6 m avec connecteur surmoulé.
- > Thru-hull housing 1.8" (#90-60-221) - Internal Ø: 31 mm



> PADDLE-WHEEL SPEED SENSOR

- > Speed measurement range: 0 à 50 nœuds
- > Temp. measure range: 0°C to +50°C
- > Weight: 300 g (avec câble)
- > 6 metres cable featuring moulded connector.
- > Thru-hull housing 1.8" (#90-60-221) - Internal Ø: 31 mm



> DEPTH SOUNDER

- > Depth range: tested up to 50 metres
- > Weight: 350 g (with cable)
- > 6 metres cable featuring moulded connector
- > Thru-hull housing 2" (#90-60-222). Internal Ø 40 mm

PROCESSORS AND RELATED SENSOR



> HR PROCESSOR

- > Dimensions [H x L x P]: 200 x 110 x 60 mm
- > Consumption: 277 mA (3,3W sous 3.3V)
- > Weight: 500 g
- > Power supply: 9-18 V
- > IP Protection rate: IP67



> 3D SENSOR

- > Dimensions [H x L x P]: 110 x 56 x 39 mm
- > Consumption: 30 mA
- > IP Protection rate: IP67
- > Weight: 200 g

LOG SOUNDER INTERFACE



LSI

- > Dimensions: 145 x 65 mm
- > Power supply: 10 to 16 VDC
- > Consumption: 60mA
- > Waterproof protection: IP54
- > Weight: 160 gr



DUAL LSI

- > Dimensions: 145 x 65 mm
- > Power supply: 10 to 16 VDC
- > Consumption: 60mA
- > Waterproof protection: IP54
- > Weight: 160 gr

AUTOPILOT



GYROPILOT

- > Dimensions [H x L x P]: 210 x 134 x 42 mm
- > Consumption: 50 mA au repos (sur « stop »)
- > Power supply: 10 à 16VDC
- > Alimentation sur la puissance en 24 V ou 12 V
- > IP Protection rate: IP67
- > Weight: 1kg, câble compris



RUDDER FEEDBACK

- > Dimensions [Ø x H]: 50 x 29 mm
- > Power supply: 10 - 16 V
- > Consumption: 15 mA
- > Résolution : 0,1°
- > Cable length: 3 m - 40 g/m
- > Weight: 330 g (without cable)



JOYSTICK

- > Dimensions [H x L x P]: 82 x 42 x 42 mm
- > IP Protection rate: IP65

REMOTE CONTROLS



> GYROPILOT

- > Dimensions [H x L x P]: 82 x 64 x 23 mm
- > Power supply: par pile lithium 3.6V
- > IP Protection rate: IP68
- > Weight: 65 g



> DISPLAYS

- > Dimensions [H x L x P]: 82 x 64 x 23 mm
- > Power supply: par pile lithium 3.6V
- > IP Protection rate: IP68
- > Weight: 65 g



> CREW MATE

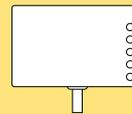
- > Dimensions [H x L x P]: 82 x 64 x 23 mm
- > Power supply: lithium battery 3.6V
- > IP Protection rate: IP68
- > Weight: 65 g



> RADIO RECEIVER

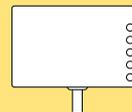
- > Dimensions [H x L x P]: 120,5 x 56 x 31 mm
- > IP Protection rate - Housing : IP20 (not waterproof)
- > Weight: 260 g (without cable)
- > Cable: 3 m

INTERFACE BOXES



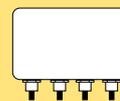
> WIFI USB BOX

- > Dimensions [H x L x P]: 56,4 x 110 x 26 mm
- > Power supply: 8V - 32V
- > Consumption: 50 mA
- > Cable length: 3 m - 32 g/m
- > Weight: 20 g



> ETHERNET BOX

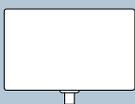
- > Dimensions [H x L x P]: 56,4 x 110 x 26 mm
- > Power supply: 8V - 32V
- > Consumption: 50 mA
- > Cable length: 3 m - 32 g/m
- > Weight: 20 g



> AIS TRANSCIEVER

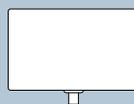
- > Dimensions: 140 x 100 x 42 mm
- > Consumption: 170 mA to 12 CCV
- > Waterproof protection: IP7
- > Weight: 250 gr
- > Interfaces : USB output, NMEA 0183 output, NMEA 0183 and NMEA 2000 input

SPECIFIC SENSORS



> BATTERY MONITOR 500

- > Dimensions [H x L x D]: 56,4 x 110 x 26 mm
- > Power supply: 8V - 32V
- > Consumption: 50 mA
- > Cable length: 3 m - 32 g/m
- > Weight: 20 g (without cable and without shunt)



> BARO HR 100

- > Dimensions [H x L x D]: 56,4 x 110 x 26 mm
- > Power supply: 8V - 32V
- > Consumption: 50 mA
- > Cable length: 6 m - 37 g/m
- > Weight: 20 g



> MAST ANGLE

- > Dimensions [Ø x H]: 73 x 63,5 mm
- > Power supply: 10 - 16 V
- > Consumption: 15 mA
- > Resolution: 0,1°
- > Cable length: 6 m - 40 g/m
- > Weight: 450 - 550 g (vary with mounting options)



> FORESTAY LOAD

- > Dimensions (Ø x L): 12,7 x 32 mm up to 35 x 89 mm
- > Max. load: 52 to 430 kN

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