# MARINE ELECTRONICS

FR. 5322

# SIMPLY POWERFUL





Born from the creativity of Noël Kerebel in 1984, the nke company has never stopped innovating in the field of navigation aid instruments to meet the needs of all sailing enthusiasts. Research & Development, design, tests and qualifications, manufacturing, marketing, after-sales service... Whatever your program, whether it is a race or a cruise, solo or with a crew, we master the entire industrial chain to meet all your requirements and needs with state-of-the-art instruments.

Performance, reliability, ease of use, and safety remain our primary goals.

Sébastien Rogues Skipper Ocean Fifty PRIMONIAL Winner of the 2021 Transat Jacques Vabre



"My history with **nke** is very long because I started the mini in 2007 and I never left the brand. Today, the whole Ocean Fifty Primonial is equipped with **nke** solutions from the navigation system to the HR pilots, gyroscopes,... On board, we particularly appreciate the ease of use of electronics and the steering ability of the autopilot!"

Sébastien Roques

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SIMPLE

Our entire development approach is based on simplicity and safety to give you peace of mind when you are at sea. We are working on simplicity of use and interaction with your instruments, especially with our autopilot.

EFFICIENT

Our top one priority is the reliability of our instruments so that they are perfectly suited to your needs.

SERVICE

The entire nke team is at your service to meet your needs: technical advice, questions, diagnostics. We ship all the necessary instruments anywhere in the world.

**Blue Water** 



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

#### Cruising





Camille CARRÉ



> François GIRARD

> Michel DESJOYEAUX

Michael HENNESSY





> Philippe ROUSSEL

> Marie GENDRON



#### COMMITMENTS FOR STRONG AND LONG-TERM PARTNERSHIPS

We like to share our passion for sailing through many partnerships to accompany many racers in cruising, adventure and offshore racing.

We follow and support our partners around the world in the realization of their challenges and their dreams. By committing to them, nke accompanies them in the stages of their journey and thus contributes to the influence of sailing at the local and international level.

#### Performance



> Paul FRAISSE

> Luke BERRY



> Jonas GERCKENS



> Stéphane LE DIRAISON





> Damien SEGUIN







> Gaël LE CLEACH

#### > Jörg RIECHERS



> Thibaut VAUCHEL

#### PARTNERS





> Sébastien ROGUES

## MULTIFUNCTION DISPLAYS

Intuitive interface, bright and low power screens. They adapt to your needs, whatever your navigation practice.





#### ||| Multidisplay

7 inch graphic color screen, the Multidisplay gives access to all the digital and graphical data of your installation. Optical bonding offers a vision angle beyond compare. Its intuitive interface allows you to:

- Customize screen types as well as to select the proper skin type.
- Set the alarms and calibrate the sensors.

• Manage and configure the nke auto pilot. (If one is installed on the bus). You can choose between 2 orientations: landscape (in the cockpit) or portrait (on the mast). In landscape orientation, you can display 1 to 9 data. When only

one data is displayed (50mm font size) it replaces the SL50. In portrait orientation, you can display 1 to 4 data. With 3 data of 25mm high and despite its compactness, it offers a much better readability than the TL25. The multidisplay is controlled by 2 external wired keypads: the PAD pilot and the PAD display.

They allow to configure display settings, to set the alarms and to calibrate the sensors. The PAD pilot allows to engage/disengage the autopilot and to modify the steering instructions. The PAD display is used to display the data and control the timer. More intended for boats without autopilot, it can be a useful additional tool in regattas.



#### || 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

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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.

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#### 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.

#### || 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

nke has developed the latest generation of autopilot. The GyroPilot 3, based on our experience in the racing, is fully adapted to the needs of cruising and will be the right partner at your side during your adventure.

Offshrore racers will take full advantage of the GyroPilot3 HR. Integrating a new way of thinking about piloting, when there is the need to go beyond standard modes to gain additional performance.



The GyroPilot 3 is bringing 30 years experience of steering sailboats. Through a high frequency processing algorithm designed by our engineers, it will steer a lot better than most helmsmen. The new GyroPilot 3 allows any user to steer with unparalleled quality. The autopilot can be used with different modes: True wind, Apparent wind, Compass, Rudder and GPS modes and «SUPER» modes such as the Roll and the Gust winds modes.



#### ||| Rudder angle sensor

Thenkesensor, 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.



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

CREW I REMOTE i

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  $1^{\circ}$  for wind angle and less than 1% for wind speed linearity. It measures wind angle through  $360^{\circ}$  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 Compas**

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.



#### ||| Compas Fluxgate

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 selfcompensation 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 tactitian.

#### 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** = 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 boradcasts data such as heading and WPT distance on the bus to be displayed on the multifunction displays.



#### Box N2K

The Box N2K is a double gateway: NMEA 0183 / Topline and NMEA 2000 / Topline which allows to interconnect the Topline bus, a NMEA 2000 bus and NMEA 0183 instruments. The data received can then be used on the instruments of your Topline installation. It also allows to exchange these data with a computer and/or a wireless device in Wi-Fi.



#### ||| 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.





#### **Processor X**

The Processor X, replacing the Processor Regatta, is an advanced computer capable of processing all the data from the on-board sensors at high frequency. With multiple inputs and outputs (CAN, serial and GPIO) its limit is your imagination. With a user-friendly graphical interface you can manage your calibrations, your calculations and the creation of custom variables. Its data logging capabilities make it an incomparable ally in performance analysis in near-real time as well as in post processing.



#### **3D Sensor**

As a high performance AHRS, the 3D Sensor provides attitude and boat movement data that allows for wind measurement correction. This data is used in the algorithms of the "Super" modes of our pilots. It is also a highresolution compass. The Processor X is an advanced super performance computer able to process data from sensors at a high frequency.



# SOFTWARE TOPS ILOR

#### Visualize your nke installation

The dashboard allows you to see at a glance your instruments, the status of your autopilot and the situation you are in.



### 2 Configurate your autopilot

Take full control of your autopilot. Steer it from TopSailor and save your settings for quick use. The data strip allows you to view the situation at any time and make a quick decision on how to change a setting on the autopilot. The autopilot page is available with GyroPilot2 and the HR autopilot.



### **5** Save your data pages

Just like a nke display, create pages to visualize your data as you wish. The different layouts will allow you to customize your screens in order to highlight the data that could help you make the right decision at the right time.



#### Diagnose your instruments

Find the instruments present on your bus. Identify them easily thanks to their design and their address.

A diagnostic page is associated to each device and allows you to quickly know it status: if there are errors or loss of information. You can also find the product manual to learn how to use them in the best conditions.

The Topline channels associated with each instrument will show you where the data comes from. They also let you know if an NMEA input is configured on a compatible device.







The Logger module offers you the possibility to record the flow of data circuling on the Topline bus. It is a diagnostic tool that is intended to later on enable you to analyze your navigations.

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#### **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 speedo. 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 PROCESSOR X PACK » pour mettre à la place "The wind minded Processor X acquires data at 25 Hz and provides accurate noise-free wind figures adjusted for the boat's acceleration thanks to the 3D sensor X.



# nke

Industrial marine electronics supplier for over 40 years

















FULLY DEDICATED TO SAILORS!



TESTING / VALIDATION

FR/ 5322













SALES



MANUFACTURING



#### 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 'basic 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.



#### Hydraulic ram

LADIE M

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 3 fits all types of power units and rudder angle sensors. Whether the clutch requires DC or PWM current, whether the rudder angle sensor is rotary, linear or integrated, you can configure everything.





#### > MULTIGRAPHIC

- > Dimensions [H x L x D]: 118 x 192 x 23 mm
- Consumption: 90 mA swithout 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

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- > 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

#### III 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 FREOUENCY 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**



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#### > 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

#### **III 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 konts.
- > Temp. measure range: 0°C to +50°
- > Weight: 600 g (with cable)
- > Thru-hull housing (#90-60-221): Internal Ø 31 mm

> Thru-hull housing 1.8' (#90-60-221) - Internal Ø: 31 mm

#### > ELECTROMAGNETIC SPEED SENSOR

> PADDLE-WHEEL SPEED SENSOR

> Speed measurement range: 0 à 50 nœuds

> 6 metres cable featuring moulded connector.

> 6 metres cable featuring moulded connector

> Thru-hull housing 1.8' (#90-60-221) - Internal Ø: 31 mm

> Thru-hull housing 2" (#90-60-222). Internal Ø 40 mm

> Temp. measure range: 0°C à +50°C > Weight: 300 g (avec câble)

> Depth range: tested up to 50 metres

> DEPTH SOUNDER

> Weight: 350 g (with cable)

> 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.

#### PROCESSORS AND RELATED SENSOR



#### > PROCESSOR X

- > Dimensions (H x L x P): 215 x 145 x 75 mm
- > Consumption: 93mA (@12,0V) without 3D Sensor // 175mA with 3D Sensor
- > Weight: 470 g (without cables)
- > Power supply: 9-18 V
- > IP Protection rate: IP67

#### > 3D SENSOR

> Dimensions [H x L x P]: 110 x 56 x 39 mm

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- > Consumption: 30 mA
- > IP Protection rate: IP67
- > Weight: 200 g

#### **LOG SOUNDER INTERFACE**



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

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#### **DUAL LSI**

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

#### **III AUTOPILOT**

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#### **GYROPILOT 3**

- > Dimensions: 215 x 145 x 75 mm
- > Consumption: 30 mA
- > Power supply: bus 12 V + power 12V/24V
- > IP Protection rate: IP67 > Weight: 3,2 kg, cables included

#### **RUDDER FEEDBACK**

- > Dimensions [Ø x H]: 50 x 29 mm
- > Power supply:10 16 V
- > Consumption: 15 mA
- > Résolution : 0.1°
- > Cable length: 6 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





- > 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:200 g (without cable and without shunt)

#### **> BARO HR 100**

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- > 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:200 g

#### **||| 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)

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> FORESTAY LOAD

up to 35 x 89 mm

> Max. load: 52 to 430 kN

> Dimensions (Ø x L): 12.7 x 32 mm

- > Weight:260 g (without cable)
- > Cable: 3 m

#### **||| INTERFACE BOXES**

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> MAST ANGLE

Consumption: 15 mA
 Resolution: 0.1°

> Cable length: 6 m – 40 g/m

> Dimensions [Ø x H]: 73 x 63,5 mm
 > Power supply:10 - 16 V

> Weight: 450 – 550 g (vary with mounting options)

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#### > 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: 200 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: 200 g

#### **BOX N2K** ------

> Dimensions: 564 x 110 x 26 mm

> Dimensions: 140 x 100 x 42 mm > Consumption: 170 mA to 12 CCV

> Interfaces : USB output, NMEA 0183 output,

NMEA 0183 and NMEA 2000 input

> Waterproof protection: IP7

- > Power supply: 8V 32V
- > Consumption: 50 mA

**AIS TRANSCEIVER** 

> Weight: 200 gr

- > Cable length: 3m (32g/m)
- > Weight: 200g

## nke global SERVICE

Do you have a technical question? Or need advice on installation? Trained by the nke team, our experts will take action to help you anywhere in the world.



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