NINGLU

NingLu Technology

Manufacturing high-quality navigational equipments to create China's leading brand.

Nanjing NingLu Technology Co., LTD

CONTENTS

ABOUT US

Nanjing Ninglu Technology Co., Ltd. was a joint venture established in 2000 by Norway SKIPPER AS and Nanjing Haitian Ninglu Electronics Co., LTD.

In 2021, the shares of Norway SKIPPER AS were acquired by Chinese shareholder, and the company was transformed from a joint venture into a domestic enterprise, focusing on the field of ships' navigation equipment.

We has own R&D department, as well as sales and production team. With an operating area of 1600 square meters, Ninglu is not only an excellent team full of vitality, hard work and innovation, but also an innovative R&D team and a harmonious and efficient management team.

Ninglu main product is ship navigation equipment, including rudder angle indicating system, echo sounder, speed log, anemometer, inclinometer, bridge watch alarm system (BNWAS), fish finder, NMEA0183 data distributor, transducer, simulator etc.

In 2002, company passed ISO9001 quality system approval. In 2023, Ninglu becomes the high-tech enterprise approved by Chinese government. All kinds of products are approved by CCS. Ninglu not only has a production chain with fast response and close cooperation, but also a sales team with professional service and excellence, and a close service team on standby all day.

Ninglu adheres to steady management and continuous innovation, manufacturing excellent quality ships' navigation products with international standards and advanced technology, and making greater efforts for the service of our customers.
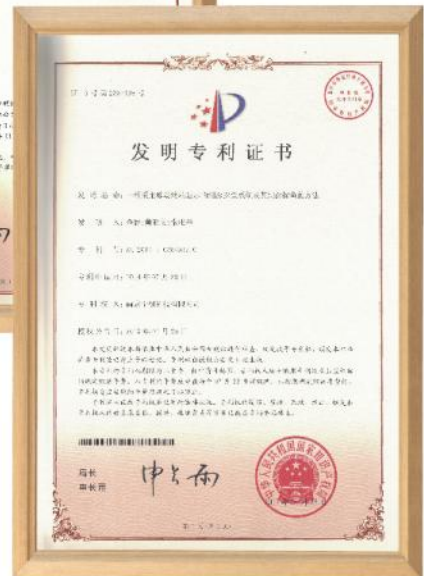
PROFESSIONAL CERTIFICATES

CCS Type approvals

DNV-MED certificates

Invention patent certificates

Rudder Angle Indication System

Rudder Angle Indication System AD80 >>>
(MED、CCS APPROVED)

Rudder angle indication system AD80 is used to accurately and real timely indicate the direction and position of the rudder in wheel house, ECC room and steering gear room for the crew. With the functions of flexible configuration, good dimming, easy to install and maintain, AD80 fully complies with the regulations of IMO and the standard IEC61162 sentences. It is one kind of very important equipment for steering and can be widely used in various passenger and cargo vessels.

- **Analog&Digital Dual Display;**
- **Multidirectional Rod Link;**
- **Fast Plug-in Waterproof Canector;**
- **Multi-size Display Optional.**

AD804

AD806

AD805

▎SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	SPECIFICATIONS
Display	Analog&Digital	Protection	AD801， AD802—IP22 AD803， AD804， AD805—IP56 AD806—IP10 AD807—IP00
Data Output	NMEA0183 Rudder Angle Data		
Direction Accuracy	± 0.1°		
Range	− 45° ~45°	Power−drop Alarm	Alarm with LED（show "PL"）
Power Supply	AC:110/220V 50/60Hz DC:24V (21.6–31.2V) ≤60W	Operating Temperature	−15to +55 degreeC,We suggest to be 0 to +40 degree C
Brightness Adjustment	Independent/Giobal	Storage Temperature	−20 to +70 degree C
NMES Port	RS422 Outpost 2Pin NMEA A/B	Humidity	10–90% relative， no condensation

Inclinometer

Electronic Inclinometer EI330 >>>
(CCS APPROVED)

The EI330 is an electronic inclinometer designed to help ships avoid hazardous situations during decision-making, as well as to provide maritime agencies with information on the ship's swing period and angle to assist and facilitate their investigation of accidents. It can not only measure the roll and pitch angle of the ship in real time, calculate the amplitude and period, and transmit to the VDR to save the navigation information of the ship. It also has an alarm function for the captain and crew to refer to when driving, to prevent the ship from appearing dangerous posture.

- **Two-axis monitoring;**
- **Analog plus digital display;**
- **Multi-mode alarm;**
- **High resolution LCD display.**

Display EI330

External alarm device

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	8 inch color TFT LCD ,800×600
Power Supply	AC:110/220V （50/60Hz）With Adapter DC:18V~31.2V (24V，-25%~+30%)
Roll/Pitch Angel Range	± 90°
Roll/Pitch Angel Accuracy	± 0.1°
Roll Amplitude Range	0° ~ + 90°
Data Output	NMEA0183 Rudder Angle Data
Alarm Mode	Roll Alarm/Sensor Failure Alarm/Power Failure Alarm
Roll Amplitude Accuracy	
Roll Period Range	± 0.1°
Roll Period Accuracy	4~40s
	1s

Optional Accessorie

Printer

External sound and light alarm device

Remote Dimming Control

Echo Sounder

8 inch dual channel automatic liquid crystal sounder DS228 >>>
(CCS APPROVED)

The echo sounder DS228 is a marine ultrasonic echo sounder, which uses ultrasound to measure the depth of the water when the ship is stationary or sailing, so that the staff on board can understand the real-time water depth situation and avoid the ship running aground.

The instrument has two measuring channels, color echo display, clear picture, simple operation, strong reliability, can continuously and stably measure underwater depth, and draw echo image. The instrument also has shallow water alarm, data storage, historical playback, data output and other functions.

- **Auto-gain Auto-range Available;**
- **48 hours history data record;**
- **Auto Ambient light adaptation;**
- **Dual-frequency Dual-channel Sounding.**

▍SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	8 inch color TFT LCD ,800×600
Power Supply	AC:110/220V DC:24V ≤30W
Frequency	50KHz/200KHz
Data Output	NMEA0183 Rudder Angle Data
Channel	1/2channel display available
Transmitting Frequency	CH1：200KHz CH2：200KHz/50KHz
Transmitting Pulses Width	0.03ms~2ms
Minimum measurable depth	0.3m
Range	Min 1.0m,Max 200m

Echo Sounder

10 inch LCD sounder DS2008 >>>
(CCS APPROVED)

- **Single channel 200kHz or 50kHz**
- **Dual channel, single frequency 200kHz and 200kHz**
- **Dual channel, dual frequency 200kHz and 50kHz**

DS2008 navigation sounding instrument is widely used in international and domestic navigation and inland navigation sounding.

- **Digital signal processing;**
- **20 hours recording;**
- **Power protection and alarm;**
- **Dual-channel & dual-frequency selection.**

▌SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	10.4 inch color TFT LCD ,640×480 pixels
Power Supply	AC:110/220V DC:24V
Frequency	50KHz/200KHz
Data Output	NMEA0183 Rudder Angle Data
Power Output	500W
Depth Range	Smaller range scope：0—500m Larger range scope：0—800m
Accuracy	±0.1% of range
Power Alarm	Power Lost Alarm
Time Scale	Buzzer，Flashing

Transducer&Tanks

Transducers Model	Frequency	Power	Diameter	Cable Length	Outer Shell
NGM100-200	200kHz	600W	138mm	15-40m	Rubber

Tanks Model	Output	Outer Shell	Transducers Model
NGM100-200DLZ	Φ216mm	Steel	NGM100-200-25L
			NGM100-200-15L

Transducers Model	Frequency	Power	Diameter	Cable Length	Outer Shell
TGM60-50	50kHz	600W	91mm	10-40m	Rubber
TGM60-200	200kHz	600W	91mm	10-40m	Rubber

Tanks Model	Output	Outer Shell	Transducers Model
NGM100-50DLZ	Φ216mm	Steel	TGM60-50(B) 10L

Transducer&Tanks

Transducers Model	Frequency	Power	Diameter	Cable Length	Outer Shell
BP60-50	50kHz	600W	80mm	15-40m	Bronze
BP60-200	200kHz	600W	80mm	15-40m	Bronze

Tanks Model	Output	Outer Shell	Transducers Model
BP60-50DLZ	Φ120mm	Steel	BP60-50-15L
BP60-200DLZ	Φ128mm	Steel	BP60-200-15L

Transducers Model	Frequency	Power	Diameter	Cable Length	Outer Shell
NTB52-200-10L	200kHz	300W	72mm	10m	Bronze

Tanks Model	Output	Outer Shell	Transducers Model
NTB52-200DLZ	Φ118mm	Steel	NTB52-200-10L

Marine Anemometer

Marine Anemometer AM706 Ocean version (AM706E+AM706S) >>>
(CCS APPROVED)

The Marine Anemometer AM706 is a combined instrument for wind speed and direction. It can measure relative wind speed (accuracy ±5%, min 0.1m/s), relative wind direction (digital display accuracy 1°, analog display accuracy 10° and output accuracy ±1°). GYRO（HDT）, SPEEDLOG （VBW）or GPS (RMC/VTG) data user can select relative wind mode and true wind mode.
Main unit AM706E can be installed by the table, hanging and flush mountingmethods. Sensor AM706S should be installed in the place with free wind in the ship.

- **High Resolution Wind Speed (0.1m/s)& Direction(1°);**

- **Anemometer Temperature Resistant & Moisture Proof Mechanic Design & Salt Proof;**

- **7inch High Brightness LCD Display;**

- **Digital & Analog Display.**

Diaplay AM706E

Seneor AM706S

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	7 inch TFT LCD ,800×480
Wind Range	0~359°
Direction Accuracy	±1°
Speed Range	0~60m/s
Speed Accuracy	0.1m/s
Data Output	NMEA0183 Wind Speed and Direction
Power Supply	AC:110/220V DC :24V ≤5W
Startup Wind Speed	≤1.2m/s

Marine Anemometer

Marine Anemometer AM706 offshore version (AM706E+AM706H) >>>

(CCS APPROVED)

The Marine Anemometer AM706−H is a combined instrument for wind speed and direction. It can measure relative wind speed (accuracy ±5%, min 0.1m/s), relative wind direction (digital display accuracy 1°, analog display accuracy 10° and output accuracy ±1°). GYRO（HDT）, SPEEDLOG（VBW）or GPS (RMC/VTG) data user can select relative wind mode and true wind mode.
Main unit AM706E can be installed by the table, hanging and flush mountingmethods. Sensor AM706H should be installed in the place with free wind in the ship.

- **High Resolution Wind Speed (0.1m/s)& Direction(1°);**

- **Anemometer Temperature Resistant & Moisture Proof Mechanic Design & Salt Proof;**

- **7inch High Brightness LCD Display;**

- **Digital & Analog Display.**

Diaplay AM706E

Seneor AM706S

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	7 inch TFT LCD ,800×480
Wind Range	0~359°
Direction Accuracy	±1°
Speed Range	0~60m/s
Speed Accuracy	0.1m/s
Data Output	NMEA0183 Wind Speed and Direction
Power Supply	AC:110/220V DC :24V ≤5W
Startup Wind Speed	≤0.5m/s

Marine Anemometer

Marine Anemometer AM706for hazardous chemical ships(AM706E+AM706C+AM706S) >>>

(CCS APPROVED)

● Cargo control room/Bridge：Dual Display

The Marine Anemometer AM706–H is a combined instrument for wind speed and direction. It can measure relative wind speed (accuracy ±5%, min 0.1m/s), relative wind direction (digital display accuracy 1°, analog display accuracy 10° and output accuracy ± 1°). When the instrument is connected to GPS(RMC) data, it can choose to display heading information, absolute wind speed and direction, or maximum wind speed information. This product can be customized with alarm and printing functions.

Cab Main Display AM706E

Master Display AM706C

Sensor AM706S

- ● **High Resolution Wind Speed (0.1m/s)& Direction(1°) Anemometer;**

- ● **Temperature Resistant & Moisture Proof Mechanic Design & Salt Proof;**

- ● **High Brightness LCD Display;**

- ● **Real-time wind direction and dynamic wind direction double loop display.**

Alarm in CCR

Optional Accessorie

Alarm in deck

Wind repeater IR761

Printer

Marine Anemometer

Marine Anemometer AM706Weather Station (AM706D+AM706S+AM706TH) >>>
（CCS APPROVED）

The marine weather station AM706D is a multi-functonal measuring instrument with wind speed, direction, temperature, humidity and barometric pressure. It can accurately measure and display real-time relative wind speed and direction, true wind speed and direction, air temperature, relative humidity and barometric pressure. In addition, it can regularly print these parameters and time, longitude and latitude, ship speed, and navigational signal. It is mportant and necessary for observation and safe navigation.Rainfall sensors and PM2.5 sensors can be customized according to customer needs.

- All-body anti-corrosion and anti-aging materials;
- Waterproof, anti-salt spray design;
- Selection of extemal equipment, such as alarm;
- Digital & Analog Display.

Diaplay AM706D   Sensor AM706S   AM706TH

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	10 inch TFT LCD ,640×480 pixels
Data Output	Wind SpeedWind Direction/Temperature/ Humidity/Barometer
Direction Accuracy	± 1°
Wind Range	0~359°
Speed Accuracy	0.1m/s
Speed Range	0~60m/s
Power Supply	DC :24V 15W
Startup Wind Speed	≤1.2m/s

Alarm in CCR
Alarm in deck
Optional Accessorie
Rainfall
Wind repeater IR762
Printer
PM2.5

Doppler Speed log

Doppler Speed log DS99 >>>
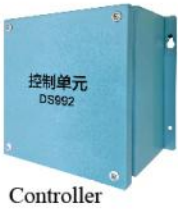## (CCS APPROVED)

DS99 is a single axis Doppler Speed Log, displaying ship's speed relative to water in one axis(STW, Fore/ Aft) and distance (Trip/ Total) in 7 inch TFT LCD, using Doppler principle.

- **High performance supersonic signal filter;**

- **Stainless steel transceiver cabinet;**

- **Pair-beam system reduces errorcaused by pitching;**

- **Speed/distance information on the adjustable-brightness LCD display.**

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	7 inch TFT LCD ,800×480 pixels
Power Supply	AC:110/220V
Data Output	NMEA0183 Speed and range information
Total Counter	Measurement from 0 to 999999.99NM
Speed Range	−10~+40kn
Trip Counter	Measurement from 0 to 9999.99 NM

控制单元
DS992

Controller

收发单元
DS993
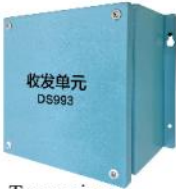
Transceiver

Valve

Tank

Sensor

Bridge Watch Alarm System

Bridge Navigational Watch Alarm System BW508 >>>
(CCS APPROVED)

Bridge Navigational Watch Alarm System is to monitor the awareness of the Officer of the Watch (OOW) and automatically alerts the Master or another qualified OOW if for any reason the OOW becomes incapable of performing the OOW's duties.

- **Easy installation,simple operation and high quality;**

- **Complies with performance standard IEC 62616;**

- **With emergency call and emergency transfer function;**

- **Support NMEA0183 data input/output.**

BW508 Marster

SPECIFICATIONS

ITEM	SPECIFICATIONS
Marster Display	20*16 TFT LCD
Power Supply	AC： 110/220V 50/60Hz DC:24V(20~30V) < 75W
Signal Input	Emergency Transfer Switch Value Input External Device Reset Switch Value Input
Signal Output	Status Output NMEA0183(ALR) Malfunction Output Switch Value Output

1st Stage Alarm   2nd Stage Alarm   3rd Stage Alarm

Fish Finders

7 inch Fish Finders FS117 >>>

7 inch fish finder FS117 is widely used in marine and river fishing operations.

- Dual frequencies optional 50kHz/200kHz;
- Multi installation modes;
- Innovative appearance & simple control;
- Minimum detectable depth 0.5m.

SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	7 inch TFT LCD ,480 × 234 pixels
Power Supply	DC:11~40V
Output power	400W
Frequency	50KHz、200KHz 200KHz/50KHz
Depth range	0~400m
Echo level	8 and12 color levels
Alarm types	Fish alarm (2m above)
Depth Unit	Meter, Fathom

Monitors

Channels Repeater NM501 >>>

NM501, 7 inch navigation monitor, displays depth, wind, gyro, speed log and GPS navigation messages on one screen. Its rugged and handsome design offers excellent user feelings. Remote controller is available for ceiling installation.

- 5 channels repeater, only one cable is needed;
- Gyro/Sounder/Anemometer/Speed log/GPS repeaters;
- 5 repeaters in 1 mode and single repeater mode;
- In one window mode;
- Wind/Depth alarm, Speed/Distance unit selectable;
- Data receiving indicators, LCD backlight set;
- Remote keyboard, easy control for ceilingmount.

▌SPECIFICATIONS

ITEM	SPECIFICATIONS
Display	7 inch TFT LCD ,800 × 480pixels
Power Supply	DC:24V(18~33V)
Consumption	< 10W
Alarm Types	Wind Alarm/Shallow Alarm
Alarm Mode	Buzzer / Flashing(switchable)

Repeaters

Depth Repeater IR261 >>>

IR261 is digital depth repeater. The instrument receives DBT information from the echo sounder (NMEA0183, version 2.30), displays the depth under the transducer on seven–segment nixie tube and can manually set the depth alarm. Measuring unit: foot, meter, fathom (f,M,F)

- **Read NMEA0183 format data, compatible with a variety of sounder products;**

- **The four-bit 0.8inch height digital display has adjustable brightness function;**

- **Unit for option: fathom, meter, feet;**

- **Shallow water alarm function;**

- **Data error or loss alert function.**

SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Depth Repeater
Power Supply	DC:24V
Consumption	3W(24V)
Depth Limit	0~999m
Measurement	L144mm × W144mm × H65mm

Repeaters

Speed log Repeater IR861 >>>

The IR861 is a comprehensive display of ship speed and course. The instrument receives VBW information from the speed log (NMEA0183, version 2.30), displays the transverse and longitudinal ship speed on the digital tube, and can display the current trip distance and total mileage.

- **Read NMEA0183 format data, compatible with single axis or dual axis speed log.**

- **Seven-section high-light digital tube display has the function of adjustable brightness.**

- **Two-dimensional display function, displays both transverse and longitudinal ship speed.**

- **Refer to either to bottom or to water.**

SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Speed and range are Repeater
Power Supply	DC:24V
Consumption	3W(24V)
Measurement	L144mm × W144mm × H65mm

Repeaters

Digital Gyro RepeaterIR361 >>>

IR361 is a digital gyro repeater that displays the heading angle in the LED segment display and indicates the rate of turn (ROT) with 30 dual–color surrounding LEDs. The IR361 will display heading angle given by the HDT message from a gyro or other equipment (NMEA 0183) and indicate ROT by calculating change in heading based on the HDT input and the time between each message.

- **Read NMEA0183 format data, compatible with a variety of ship electric compasses**

- **Seven-section high-light digital tube display has the function of adjustable brightness.**

- **30 two-color light-emitting diodes displays the heading change rate, and brightness adjustable**

▌SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Digital Gyro Repeater
Power Supply	DC:24V
Consumption	2W(24V)
Display Limit	0.0~359.0°
Measurement	L220mm × W170mm × H63mm

Repeaters

Steering Repeater SR362 >>>

Steering repeater SR362 ensures a clear indication of the heading information by using a 360° compass card. Brightness is adjusted on the front panel, via NMEA or from the optional remote controller, DIM930. Multiple installation methods facilitate observation in different positions.

- **NMEA0183 Data Reception;**
- **High-Precision Indication (1°);**
- **360° Compass Intuitive Display;**
- **Touch Sensitive Button.**

SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Wind Display
Power Supply	DC:24V
Instruction Range	0~359°
Instruction Accuracy	± 1°
Consumption	10W
Measurement	L218mm × W202mm × H64mm

Repeaters

Wind Repeater IR761 >>>

The IR761 wind repeater is a combined display for wind speed and direction. It receives NMEA0183 signal from a marine anemometer (talker), and displays the wind speed and max wind speed on digit LED, wind direction on a double LED circle. Its 144x144 Din size cabinet is suitable for panel (flush) mounting. Also the tabletop and wall mounting is available with the bracket.

- **Read NMEA0183 format data, compatible with a variety of anemometers;**

- **High brightness LED display;**

- **Real-time and dynamic wind direction showed with double loop;**

- **Signal error alarm function.**

▎SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Wind Display
Power Supply	DC:24V
Consumption	2W(24V)
Measurement	L144mm × W144mm × H62mm

Repeaters

Weather Station Repeater IR762 >>>

The IR762 weather repeater is a combined 7" LCD display for relative wind speed and direction, temperature, relative humidity, barometric information.
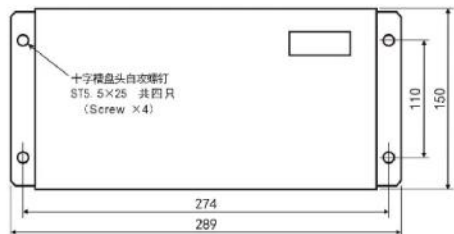
▍SPECIFICATIONS

ITEM	SPECIFICATIONS
Function	Weather Repeater
Power Supply	DC:24V
Display	7 inch TFT LCD ,800×480 pixels
Consumption	3W
Measurement	188W 164H 65D mm

NMEA0183 Data Distributors/Buffers

Data Distributors NMEA917 >>>
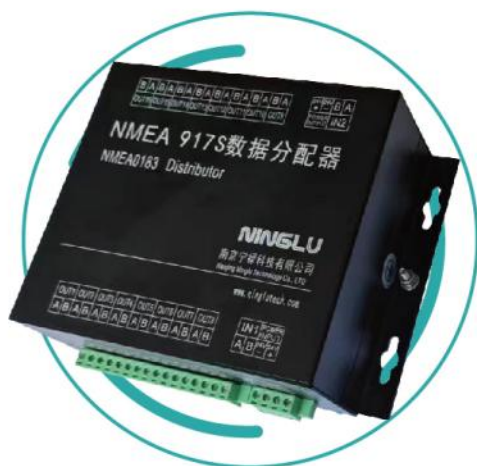

十字槽盘头自攻螺钉
ST5.5×25 共四只
（Screw ×4）

150
110
274
289

采用NMEA0183格式数据收发，波特率最大可达115200bps
NMEA0183 signals distributors, max baud rate 115200bps

NMEA917模式一：双1入7出分配器
NMEA917 model 1：dual-channel of 1 input to 7 outputs

NMEA917模式二：2选1输入14出分配器
NMEA917 model 2：1 input (automatically from 2 inputs) to 14 outputs

Data Distributors NMEA918 >>>

4-∅6
可配合ST5.5
自攻螺钉安装

164
179
110
151

采用NMEA0183格式数据收发，波特率最大可达115200bps
NMEA0183 signals distributors, max baud rate 115200bps

NMEA918：1入8出NMEA0183分配器
NMEA918: 1 input to 8 outputs

NMEA0183 Data Distributors/Buffers

Data Distributors NMEA917S >>>

NMEA 917S数据分配器
NMEA0183 Distributor

ST5.5盘头螺钉
ST5.5 Pan Head Screws

75
130
165
180

电源：18-33VDC
Power：18-33VDC

采用NMEA0183格式数据收发，波特率最大可达115200bps
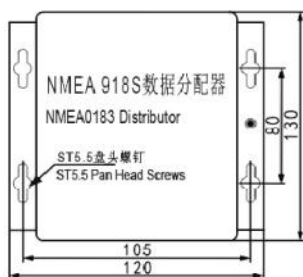NMEA0183 signals distributors,max baud rate 115200bps

NMEA917S 模式一：双1入8出分配器
NMEA917S mode1： dual-channel of 1 input to 8 outpits

NMEA917S 模式二：2选1输入16出分配器
NMEA917S mode2： 1 input （automatically from 2 inpits)to 16 outputs

Data Distributors NMEA918S >>>

NMEA 918S数据分配器
NMEA0183 Distributor

ST5.5盘头螺钉
ST5.5 Pan Head Screws

80
130
105
120

电源：18-33VDC
Power：18-33VDC

采用NMEA0183格式数据收发，波特率最大可达115200bps
NMEA0183 signals distributors,max baud rate 115200bps

NMEA918S：1入8出NMEA0183分配器
NMEA918S： 1 input to 8 outputs

Printer

Portable thermal printer PT408 >>>

- **Open the cover with one button;**
- **OLED screen status display;**
- **IP54 waterproof and dustproof rating;**
- **1.2m (concrete floor) fall resistance.**

◾ SPECIFICATIONS

ITEM	SPECIFICATIONS
Print mode	Thermal line dot printing
Print speed	90mm/s MAX
Measurement	L110mm W124mm H48mm
Paper diameter	40mm MAX
Weight	360g
Interface	RS232
Power adapter	12V0.8A Adapter
Print head life	≥50km (prunt rate 12.5%)
Effective print width	72mm
Baudra selectable range	4800~115200
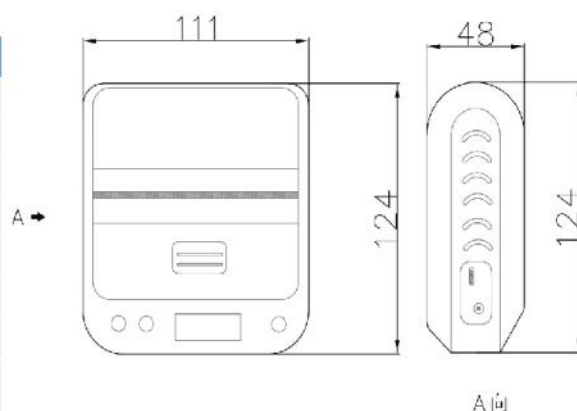
Tester/Simulators

Echo Sounder &Transducer TesterSIM990 >>>

SIM990 is portable (hand–held) combo–tester of bottom echo simulator as well as impedance tester of transducer. SIM990 will be your helpful assistant for service on board.

- ● **Echo sounder simulator;**
- ● **Resistance & phase tester;**
- ● **Frequency 10~999.9kHz;**
- ● **Portable, with build-in battery.**

SPECIFICATIONS

ITEM	RANGE	RESOLUTION	ACCURACY
Input Freq	10kHz~999.9kHz	0.1kHz	0.1kHz
Input Width	20us~60000us	1us	± 1us
Input Period	1ms~6553.5ms	0.1ms	±0.1ms
Input amplitude	50V~2500V	N/A	N/A
Output Freq	10kHz~999.9kHz	0.01kHz	±0.1kHz
Output Bottom Width	20us~60000us	1us	1us
Output Bottom Depth	0.075m~4915.125m	0.075m	±0.1m

SPECIFICATIONS

ITEM	RANGE	RESOLUTION	ACCURACY
Scan Freq	10kHz~999.9kHz	0.01kHz	±0.1kHz
Resonant Freq	10kHz~999.9kHz	0.01kHz	±0.1kHz
Resonant Resistance Of The Transducer	1ohm~65535ohm	1ohm	1ohm
Resonant phase of the transducer freq	0~3.14	0.01	±0.01
Resistance of the transducer at a particular	1ohm~65535ohm	1ohm	± 1ohm
Phase of the transducer at a particular point	0~3.14	0.01	±0.01

Tester/Simulators

Speed log Tester &Transducer TesterSIM999 >>>

SIM999 is a handheld portable tester for Doppler speed log，transducer and NMEA0183 (IEC61162–1). Doppler speed log tester

SIM999 can measure the output of a Doppler speed log, and if required, reply with a user defined signal to simulate operation of the transducer.NMEA0183 tester SIM999 receives and displays the NMEA0183 signal.

- **Doppler speed log simulator**
- **Frequency from 1MHz to 2MHz**
- **Portable, with build-in battery**
- **Connect log to test NMEA0183 signal**
- **Connect PC for doppler speed log study system**

SPECIFICATIONS

ITEM	RANGE	RESOLUTION	ACCURACY
Input Frequency	900 kHz – 2100 kHz	100 kHz	± 10 kHz
Input Width	9,000 us – 60,000 us	100 us	± 100 us
Input Amplitude	50 V – 400 V	N/A	N/A
Center Frequency	1000 kHz – 2000 kHz	1 kHz	± 1 kHz
Output Depth	0 m – 9 m	1 m	± 0.1 m
Output Width	0 ms – 20 ms	1 ms	± 0.1 ms
Output Angle	20Deg – 80 Deg	1Deg	± 0.5Deg
Low Speed	–10 kn – 40 kn	1 kn	± 0.5 kn
High Speed	–10 kn – 40 kn	1 kn	± 0.5 kn
Step Frequency	0 kn – 10 kn	1 kn	± 0.5 kn
Step Time	0 min – 5 min	1 min	± 0.1 min

Tester/Simulators

NMEA0183 Tester SIM183>>>

NMEA0183 tester SIM183 is a handheld portable tester for testing transmit–received NMEA0183 signals, with lithium battery for 9–hour continuous working. SIM183 can receive and display NMEA0183 signal from an external device, and test baud rate and peak value of the received signal. It also can send the selected NMEA0183 sentence (optional 142 kind of NMEA0183 sentences) and the baud rate of the transmitted signal can be set. In practical operation, NMEA0183 tester SIM183 can be applied for the installation, debugging and trouble removal.

- **Real-time NMEA0183 sentence reading;**
- **Test baud rate and peak value of received signal;**
- **Portable, with build-in battery;**
- **142 kind of NMEA0183 standard sentence / Programmable sentence.**

SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	SPECIFICATIONS
Display	128 × 64 dot–matri × LCD	Battery charger	12.6V / 350mA
Dimension	235mm × 135mm × 55mm	Working Temperature	−15° C ~ +55° C
Weight with Battery	0.6kg 12.6VDC 1500mAh	Waterproof	IP23

Tester/Simulators

Sunmarine Simulators SIM996   >>>

SIM996 is a precision instrument designed for generating the reply echo pulse for echo sounders and fish finders.SIM996 receives the incoming pulse parameters from echo sounder/ fish finder and generates echo pulse to simulate the bottom or fish information and then sends the information back.
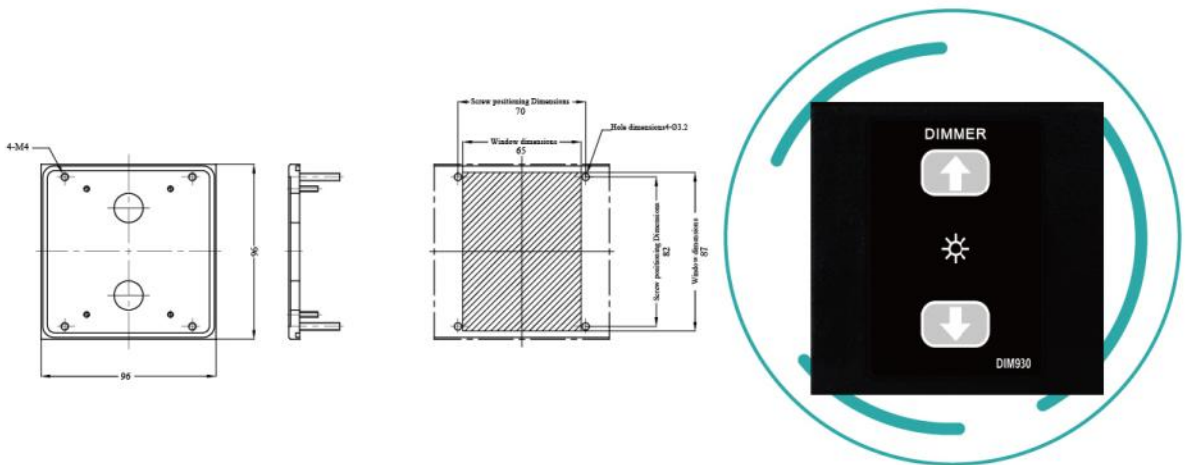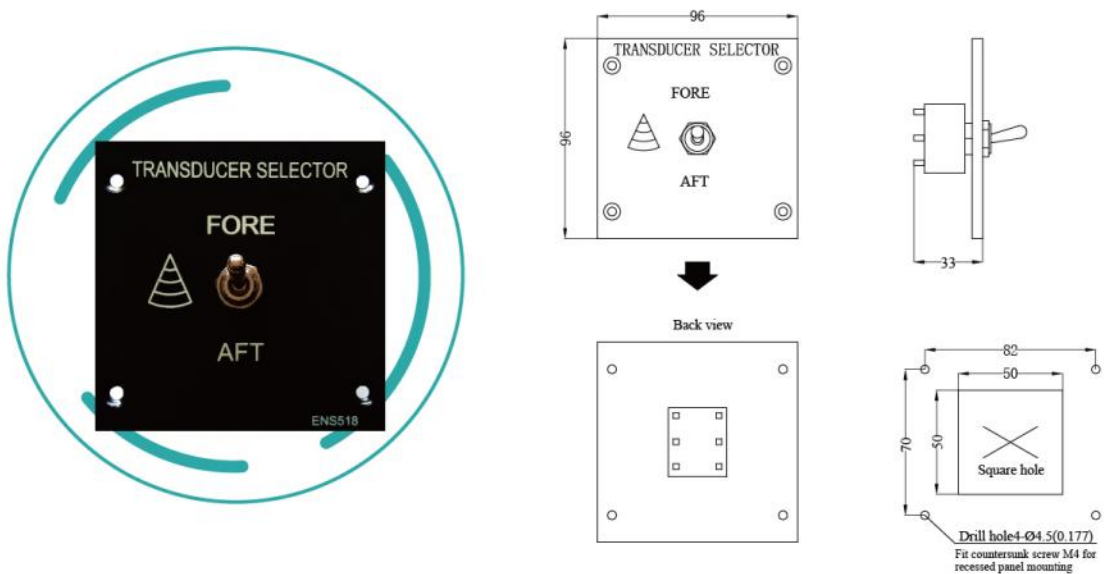

▌SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	SPECIFICATIONS
Measurement	160 × 200 × 75mm	Depth Options	6m, 12m, 24m, 48m, 96m, 192m
Weight	0.6kg	Temperature	0~50℃
Supply	DC:8V~25V	Humidity	10%~90% relative
Consumption	<1.2W	Storage	−20~70℃
Emission Freq	24kHz, 28kHz, 38kHz, 45kHz 50kHz, 60kHz, 75kHz, 200kHz	Protection	IPX2

Controllers

Remote Dimming Control DIM930 >>>

Transducer Selector switch ENS518 >>>

NINGLU

web

wechat