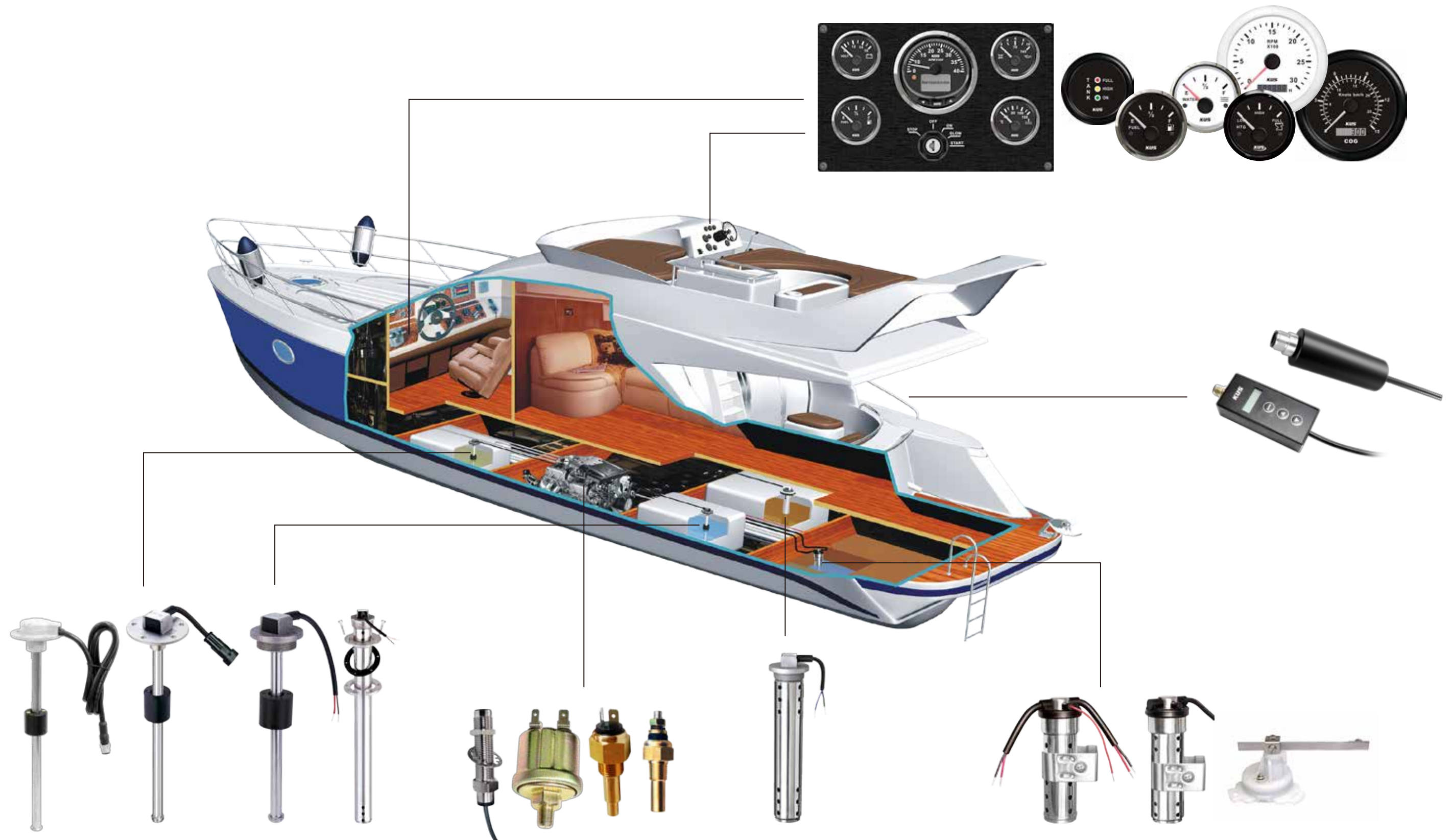


KUS

www.kusauto.com
Since 1984

MARINE
Products Catalogue

Marine Parts Illustration



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8 LED Fuel Level Gauge

8 LED Holding Tank Gauge

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Digital Water Temperature

Digital Oil Pressure

Digital Voltmeter

Hourmeter

Digital Fuel Level

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Tachometer with 4 LED Alarm

Tachometer

Digital Tachometer

Speedometer

Digital GPS Speedometer

GPS Speedometer

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Water Level Gauge

Holding Tank Gauge

Water Temp. Gauge

Oil Temp. Gauge

Voltmeter

Oil Pressure Gauge

Rudder Angle Gauge

Trim Gauge

Digital Voltmeter

Digital Water Temp. Gauge

Digital Ammeter

Hourmeter

Digital Oil Pressure Gauge

4 LED Alarm Gauge

Digital Fuel Level Gauge

GPS Speedometer

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Product Application

Introduction

www.kusauto.com



The history of Zhengyang Electronic Mechanical Ltd. traces back to 1984. The company was established in Taiwan, and moved to Guangdong province Dongguan city in 2003.

- **Product Range:**
Tank level sensors, temperature and pressure sensors, urea sensors, etc.
Gauges for fuel/water level, engine monitoring.
- **Facilities:**
At the end of 2008 ZEM's new 75,000m² plant was put into operation. The new plant has an integrated laboratory and is capable of stamping, injection, CNC, die-casting, die making, tube manufacturing, forming, bending, and welding.
- **Certificates:** IATF 16949, ISO 9001, ISO 14001, TÜV PED+AD2000 and CE certification, etc.
- **Our Customers Include :**
Bayliner, SeaRay, Hallberg Rassy, Moeller etc. yachts and accessories companies.
Cummins, SWT, Powerlink, Himoina, Zings, MPMC etc. power genset manufacturers.
Volvo, Mercedes-Benz, Iveco, MAN, Nissan, Renault, Scania etc. vehicle companies.
- **Development:**
KUS has many years of experience in developing and manufacturing mechanical and electronic parts for vehicles, especially level sensors and gauges. We have a strong design team of more than 200 professional engineers who are always ready to offer the best solution for your vehicles and yachts.

KUS®

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KUS is renowned for its 30 years of experience in the global marine instruments market. KUS exports its products worldwide, mostly to Europe and United States.

All of KUS's gauges have received the CE mark and meet the criteria of the strictest testing standards for vibration, environmental, pressure, etc.



All the gauges can be classified into two types: 52mm (2") and 85mm (3 3/8"). As per its operating principle, Zheng Yang gauge can be classified into cross coil, stepper motor, LCD & LED types. We recommend the cross coil type except for tachometers and speedometers.

According to your waterproof requirements, you can choose Zhengyang gauges with completely waterproof function, or with semi-waterproof function. Both body plates are waterproof, and the SeaV series gauges can even work in the water.

The color of the panel can be black or white; the color of the needle can be white or red. Our default color combinations are red needle to white panel or white needle to black panel. The lens had undergone anti-fog treatment and been reinforced for strength. One can choose between curved or flat lens, and choose between red or yellow backlight.



KUS utilizes advanced techniques and equipments in the production of the gauges. This assures our gauges' superior qualities and long service lives.



Manufacturing



Wave soldering production line



Antistatic workshop



Plastic injection

Through decades of development and continuous investments in manufacturing, KUS has built a wide range of comprehensive production processes and equipment. KUS production processes are vertically integrated, and in-house capabilities range from raw material processing to final assembly. KUS capabilities include German TÜV validated tube-forming lines, plastic injection, CNC, furnace brazing and annealing line, automatic SMT, and automatic wave soldering. More than 95% of key components are made in-house. This ensures product quality and adaptability to project schedules communicated by customers. KUS is the one stop turnkey solution for customer requirements.

Quality Assurance

- High quality aluminum, plastic, and stainless steel material.

Price Assurance

- Product accessories such as tubes, machining parts, etc are manufactured in-house.

Delivery assurance

- Systematic management, and progressive assembly line provide the flexibility for quick product change over.

The KUS facility consists of 15 manufacturing workshops. Advanced processes and strict quality system ensure the quality and performance of our sensors and gauges. All products are tested for functionality under extreme environment conditions.

KUS is equipped with a fully functional tooling facility with 150 design and manufacturing employees. The majority of our production tooling for processes such as the ones used in plastic injection molding, stamping, die-casting, rubber molding, etc., are designed and manufactured in-house. This in-house capability means that KUS can produce rapid-prototypes with flexible development schedules to meet customer's new project requirements.



Pipe forming



CNC machining



Urea Sensor Production Line

Laboratory Validation



Durability lab



Vibration lab



Aging & Salt Spray Test

KUS technology center is experienced in performing tests and validations. Ranging from initial product research and development to full product life validation according to international testing standards, KUS validation capabilities include :

- Design structure validation
- Electric performance testing
- Mechanical performance testing
- Low/high temp simulation testing
- Salt spray testing
- Sine/random vibration testing
- Metal material elemental analysis
- Metallurgical analysis
- Intergranular corrosion analysis

The KUS technology center was setup in 2007 spanning 1600 square meters, the facility includes:

- Vibration lab
- Electronics lab
- Aging lab
- Durability lab
- Mechanics lab
- Chemical lab
- Measurement center

KUS leads the sensing industry through research, innovation, and consistent high quality products. Since inception, KUS strives on its core policy on quality, management, and innovation. New product design are validated through a series of rigorous tests and strict process controls.

- Each batch of raw material is tested in our laboratory to ensure the material meets the high quality standards of KUS products.
- Engineering support throughout manufacturing process guarantees the reliability and stability of KUS products.
- Multi-dimensional validation throughout new product development ensures product performance in harsh environments.
- The successful market positioning is continued through strong employee awareness of product quality and processes.



Measurement center



Electronics lab



Quick chemical analysis



KMG Series

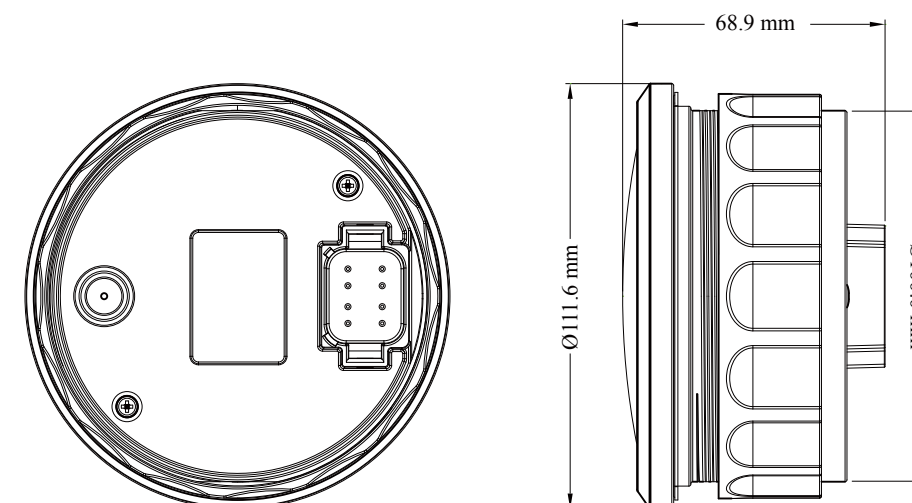


Key Features

- ◆ Two display styles option:
 - Model 1: RPM(3K~8K), Fuel level, Engine temperature, Oil pressure, Engine work hours ;
 - Model 2: RPM(3K~8K), Fuel level, Engine temperature, Oil pressure, Engine work hours ;
- ◆ Compatible with J1939 & NMEA2000, and supporting 4 different of Analog signals input (Tacho sensor, Fuel, Water temperature and Oil pressure sensor) ;
- ◆ For NMEA2000, the instance number need to be set up on the KMG ;
- ◆ For Analog signal, optional scope can be set up by customer ;
 1. Fuel level (0~190ohm or 240~33ohm) ;
 2. Oil pressure (10~185ohm or customized) ;
 3. Water temperature (301~23ohm or customized) ;
 4. Speed ratio: (0.5-250.0) ;
- ◆ Alarm function : Fuel (10%), Water temperature (95°C), Oil pressure (0.7bar), can be customized ;
- ◆ Backlight Brightness: 10%~100% ;
- ◆ IP67 protection rating ;
- ◆ Enjoy faster speed to start-up, Low power consumption, high frequency.

Product Specifiacion

- ◆ Model: KMG
- ◆ Art No.: JKE00520
- ◆ Dimension: 3.0 inches
- ◆ Mounting Dimension: 100mm
- ◆ Working Voltage: 9-32V DC
- ◆ Working Current: ≤170mA(12V)
- ◆ Resolution: 432x432 pixels
- ◆ Operation Method: Front Button (Up-Model-Down, 3 buttons to set up the function)
- ◆ Working Temperature: -30°C~+85°C
- ◆ Storage Temperature: -30°C~+85°C
- ◆ Accessories: 1M 5 cores CAN cable, 1M 6 cores Analog cable, manual.





KMB-43 Series

The KUS KMB is an Integrated Data Monitor with an advanced TFT (Thin Film Transistor) screen. The unit is compatible with J1939 and NMEA 2000 systems. The KMB displays real time network information including engine output, fluid levels, and speed. KUS can also customize the unit to meet customer requirements. The KMB is a perfect fit for marine applications that monitor information over the J1939 or NMEA 2000 network.



Integrated Data Monitor



Display Modes



Monitoring Data

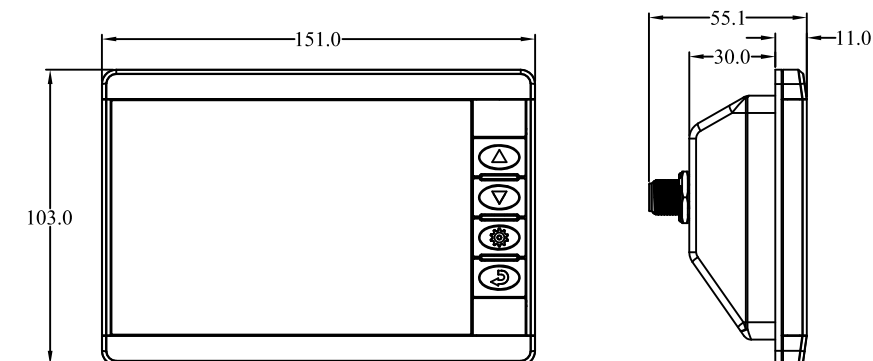
- ◆ **Engine** : Speed, Trim, Coolant Water Temperature, Oil Pressure, Hours
- ◆ **Navigation**: Course Over Ground(COG), Speed Over Ground(SOG)
- ◆ **Fluid Management**: Fuel Level, Fresh Water Level, Black Water Level
- ◆ **Rudder Position** and **Battery Voltage**

Specification

- ◆ Model: KMB-43
- ◆ Art No.: JKE00333
- ◆ Dimension: 4.3 inches
- ◆ Resolution: 480x272 pixels
- ◆ Operation Voltage: 9-32V DC
- ◆ Operation Current : 300mA (12V)
- ◆ Operation Temp.: -20°C ~ +70°C(Touch screen: -20°C ~ +60°C)
- ◆ Cable Accessories: Standard equipped with 1m length cable 0.5M/2M/4.5M/10M

Key Features

- ◆ 32-bit Cortex-M3 core + high-speed FPGA framework ;
- ◆ Fast start-up speed ;
- ◆ An easy to use and switchable interface that supports multiple languages ;
- ◆ A bright high-resolution screen display that can be seen in direct sunlight ;
- ◆ Compatible with J1939 & NMEA2000 including KUS Sea N series products .





KMB-70 Series

The KUS KMB is an Integrated Data Monitor with an advanced TFT (Thin Film Transistor) screen. The unit is compatible with J1939 and NMEA 2000 systems. The KMB displays real time network information including engine output, fluid levels, and speed. KUS can also customize the unit to meet customer requirements. The KMB is a perfect fit for marine applications that monitor information over the J1939 or NMEA 2000 network.



Integrated Data Monitor



Display Modes



Monitoring Data

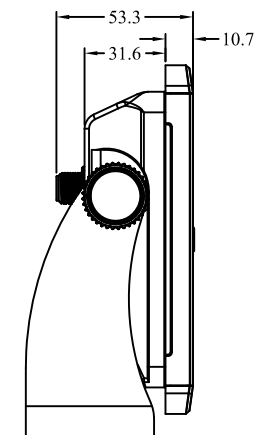
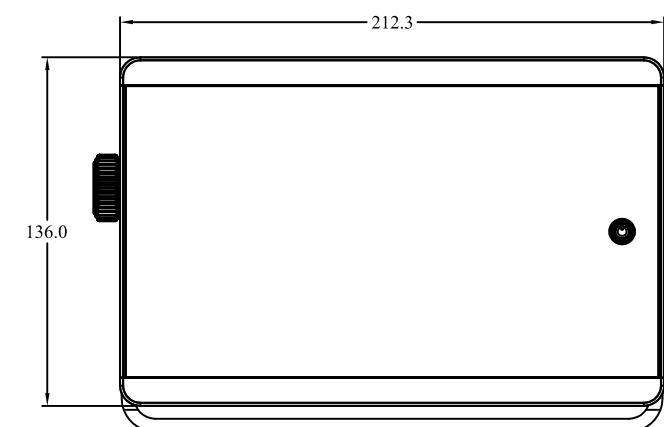
- ◆ **Engine** : Speed, Trim, Coolant Water Temperature, Oil Pressure, Hours
- ◆ **Navigation**: Course Over Ground(COG), Speed Over Ground(SOG)
- ◆ **Fluid Management**: Fuel Level, Fresh Water Level, Black Water Level
- ◆ **Rudder Position and Battery Voltage**

Specification

- ◆ Model: KMB-70
- ◆ Art No.: JKE00334
- ◆ Dimension: 7.0 inches
- ◆ Resolution: 800x480 pixels
- ◆ Operation Voltage: 9-32V DC
- ◆ Operation Current: 400mA (12V)
- ◆ Operation Temp.: -20°C ~ +70°C(Touch screen: -20°C ~ +60°C)
- ◆ Cable Accessories: Standard equipped with 1m length cable 0.5M/2M/4.5M/10M

Key Features

- ◆ 32-bit Cortex-M3 core + high-speed FPGA framework ;
- ◆ Fast start-up speed ;
- ◆ An easy to use and switchable interface that supports multiple languages and datas ;
- ◆ A bright high-resolution touch screen display that can be seen in direct sunlight ;
- ◆ Compatible with J1939 & NMEA2000 including KUS Sea N series products .





The Sea N Series consists of 8 analog instrumentations that are connected to the NMEA 2000&J1939 network:

- Fuel Level Gauge
- Water Level Gauge
- Holding Tank Level Gauge
- Voltmeter
- Water Temperature Gauge
- Oil pressure Gauge
- Speedometer
- Tachometer

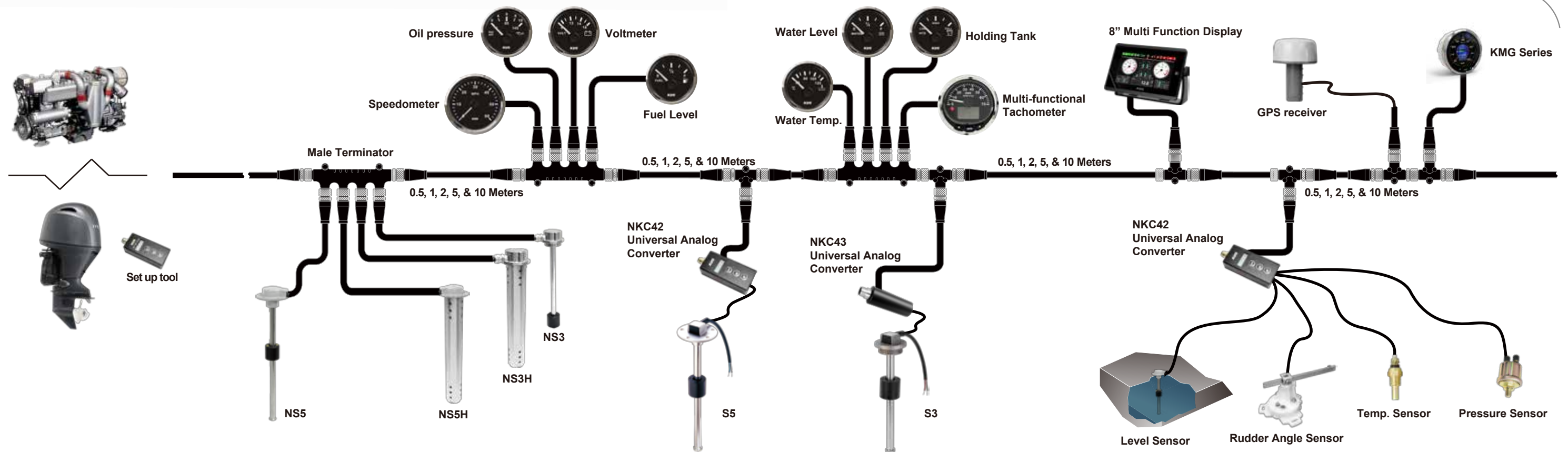
In addition to providing analog RPM display, the Sea N Tachometer also includes a LCD screen that monitors real time performance data such as:

- Engine Trim
- Battery Status
- Engine Temperature
- Engine Hour
- Oil Pressure
- Fuel Consumption
- Alarm

Features:

- NMEA2000 and J1939 Compatible ;
- LCD displays all available data and alarms on NMEA2000 and J1939 engines ;
- Tachometer, Speedo and all 2" gauges data from the CANbus ;
- KEY engine parameters supported ;
- Double layer reinforced anti-fogging glass ;
- Red background light; blue background light can be customized ;
- IP67 Waterproof ;
- Fully sunlight readable display ;
- Plug and play connectors .

NMEA 2000/J1939 Network Integration System



Sea N Series

FUEL LEVEL								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN00001	NMFR-BS	NMEA2000 & J1939		SS 316	Empty-Full	12V/24V	Φ52mm
	KN00200	NMFR-WS						

OIL PRESSURE								
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
KN05000	NMPR-BS-0-10	NMEA2000 & J1939		SS 316	0 ~ 10bar	12V/24V	Φ52mm	
KN05100	NMPR-WS-0-10							

WATER LEVEL								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN01000	NMWR-BS	NMEA2000 & J1939		SS 316	Empty-Full	12V/24V	Φ52mm
	KN01100	NMWR-WS						

VOLTMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN03000	NMVR-BS-8-16	NMEA2000 & J1939		SS 316	8~16V	12V/24V	Φ52mm
	KN03100	NMVR-WS-8-16						

TACHOMETER								
	Art. No.	Model	Parameters Supported	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KN07000	NMHB-BS-7KL	Engine RPM/ Coolant temperature/ Engine Hours/ Oil pressure/ Trim/Fuel rate/ Fuel Tank1、 Tank2、 Tank3、 Tank4		SS 316	0~7000rpm	12V/24V	Φ85mm	
KN07100	NMHB-WS-7KL							

SPEEDOMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN08000	NMOB-BS-60	NMEA2000 & J1939		SS 316	0~60MPH	12V/24V	Φ85mm
	KN08100	NMOB-WS-60						

Sea N Series & Accessories

WATER TEMP.								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN04000	NMTR-BS-40-120	NMEA2000 & J1939		SS 316	40~120°C	12V/24V	Φ52mm
KN04100	NMTR-WS-40-120							

HOLDING TANK								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KN02000	NMGR-BS	NMEA2000 & J1939		SS 316	Empty-Full	12V/24V	Φ52mm
KN02100	NMGR-WS							

Accessories

Item	Product Name	Art Code	Description	Photo
1	Cable for 85mm Sea N series tachometer and speedometer	JYS0417	44.2mm , 1M(±40MM)+DT06-08SA	
2	Female connector cable	JXE00244	44.2mm , 0.5M(±10MM)	
3		JXE00240	TPU90+PVC+zinc alloy	
4		JXE00168	44.2mm , 1M(±40MM)	
5	Double Conn with male connector cable	JXE00169	44.2mm , 10M(±100MM)	
6	Double Conn with female connector cable	JXE00170	57mm*20mm,1M(±40MM)	
7	Double Conn with male connector and female connector cable	JXE00251	56.7mm*20mm , 1M(±40MM)	

Item	Product Name	Art Code	Description	Photo
8	NMEA2000 cable, one end with M12 5pin male connector, and other one end with 4 core of shielded cable.	JXE00189	56.7mm*20mm , 1M(±40MM)	
9		JXE00242	44.8mm , 0.5M(±10MM)	
10		JXE00235	44.8mm , 3M(±60MM)	
11		JXE00236	44.8mm , 5M(±60MM)	
12		JXE00238	44.8mm , 10M(±100MM)	
13	Extended NMEA2000 cable, with male and female connector.	JXE00239	43.3mm , 0.5M(±10MM)	
14		JXE00190	43.3mm , 1M(±40MM)	
15		JXE00234	43.3mm , 2.0M(±50MM)	
16		JXE00233	43.3mm , 4.5M(±60MM)	
17		JXE00257	43.3mm , 5M(±60MM)	
18		JXE00243	43.3mm , 10M(±100MM)	
19		JXE00258	43.3mm , 15M(±60MM)	
20		JXE00259	43.3mm , 20M(±60MM)	
21	Double Conn with female connector cable	JXE00237	44.2mm , 0.5M(±10MM)	
22		JXE00191	44.2mm , 1M(±40MM)	
23		JXE00241	44.2mm , 10M(±100MM)	
24	T Backbone connector 90 degree	JXE00195	39.3mm*20mm	
25	T Backbone connector 180 degree	JXE00192	55.8mm*20mm	
26	Male Terminal resistors	JXE00193	Ø12*44.4mm	
27	Female Terminal resistors	JXE00194	Ø12*43.3mm	



NKC42/NKC43 Universal Analog Convertor

- NKC series attaches directly into J1939 and NMEA2000 networks of compatible engines, transmissions, and gen-sets and converts the resistance signals to the NMEA 2000 or J1939 CAN bus data.
- IP67 Waterproof standard.
- J1939 & NMEA2000 output for use with other onboard device.
- NKC series can be used to get engine data, tank levels, alarm status, generic pressure and temperature indications from any resistive sensors.

Product Name	NKC42 4 Channels Convertor	NKC43 Convertor
Item No.	JKE00233	1 Channel JX00066(0-190ohm) 1 Channel JX20067(240-30ohm) 4 Channels JKE00525
Dimension	NKC42 90*40*25mm	NKC43 70*Ø27mm
Protection Rating	IP67	
Signal Output	NMEA2000/J1939 Network Messages	
Operating Voltage	8~32V	
Connector	Male "Micro-C" Pinout	
Operation Temperature	-400F ~ +1850F(-400C~+850C)	
Max Current	50mA	



NJ/JN Gateway

NJ gateway can be used to convert the engine speed, oil pressure, temperature and voltage data in NMEA2000 network into the corresponding information in J1939 network JN gateway is used for converting the engine speed, oil pressure, temperature and voltage data in J1939 network into the corresponding information in NMEA2000 network.

Dimension	93.8 x 39.6 x 32.3 mm
Product Name	JN/JX200068(J1939-NMEA2000) NJ/JX200069 (NMEA2000-J1939)
Weight	76g
Operating Voltage	9~16V
Power Consumption	<50mA
Load Equivalence Number(LEN)	1
Operating Temperature	-30~+75°C
Storage Temperature	-40~+80°C
Degree of Protection	IP65



Set Up Tool

Art. No.: JX200021
KUS Sea N series gauges and level sensors have several configurable parameters, which are shown below including the default values. If you are not using the default values, you will need to use the set up tool to configuring gauge and level sensor.

- Gauge**
- Fuel Level Meter/Water Level Meter/Holding Tank Meter.
Tank Number(instance) - Default is tank 0.
The Gauge supports up to sixteen tanks(0~15).
 - Coolant Temp. Meter/Oil Pressure Meter.
Engine Number(instance) - Default is engine 0.
The Gauge supports up to sixteen engines (0~15).

- Sensor**
- Tank Type-Default is Fuel. You can reconfigure the sensor for any of these tank types, such as Fuel, Fresh Water, Waste Water, Live Well, Oil, Black Water.
 - Tank Number(instance)-Default is tank 0. The sensor supports up to sixteen tanks(0~15) for a given type of tank.
 - Tank Capacity-Default is No tank Capacity Transmitted.



GPS Receiver

GPS receiver receives the satellite signal and provide high-precision real-time location information to NMEA2000 and J1939 network.

NMEA2000	JKE00169
J1939	JKE00229





NMEA Gateway

The NGW is one type of Plug and Play Bluetooth NMEA 2000™ gateway. The NMEA 2000 Wi-Fi Gateway can send the real-time engine usage data by Bluetooth, all data can then be transferred to an App that can view all data from a NMEA 2000 marine digital network on Android device, such as PC or smart phone.

With it, you get marine network data including Fuel/water tank level, engine data, voltage, vessel course, speed, position, wind speed and direction, water depth and etc. from vessels and aircrafts and other navigation data in popular software applications.

Features

- ◆ Built-in Blue tooth, easy installation, with the standard Micro-connector;
- ◆ Simple to use, Plug and Play without any other devices;
- ◆ Customized data, to send the needed data to the user;
- ◆ Wi-Fi or Bluetooth transfer way can be personalized;
- ◆ Compatible with Smart Phones, Pad in Android system.

Specification

- ◆ Model: NGW
- ◆ Art No.: JX200065
- ◆ Dimension: 60x40x20 mm
- ◆ Material: Plastic
- ◆ Power Supply: 9~16V
- ◆ Power Current: 45mA
- ◆ Installation Way: Micro-C
- ◆ Waterproof standard: IP67



Sea V Series

Premium Quality, Professional Choice.



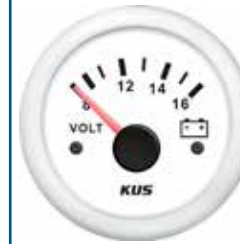
Features:

- IP67 protection rating for the entire gauge; can work up to 1m underwater;
- Double layer reinforced anti-fogging glass;
- 316 Stainless steel bezel with convex glass;
- Easy installation with multi-plug socket connection design;
- Selection of red or yellow backlight;
- Default working voltage: 12V
 - Compatible also with 24V for stepping motor and LCD type gauges;
 - Require an extra resistor to work with 24V for cross coil type gauge.

FUEL LEVEL							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY10005	CPFR-BS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm
KY10004	CPFR-BS-240-33	240~33Ω					
KY10100	CPFR-WS-0-190	0~190Ω					
KY10101	CPFR-WS-240-33	240~33Ω					
KY10002	CPFR-BN-0-190	0~190Ω		SS 316 in black			
KY10003	CPFR-BN-240-33	240~33Ω					
KY10200	CPFR-BB-0-190	0~190Ω		plastic in black			
KY10201	CPFR-BB-240-33	240~33Ω					
KY10300	CPFR-WW-0-190	0~190Ω		plastic in white			
KY10301	CPFR-WW-240-33	240~33Ω					

WATER LEVEL							
Art. No.	Model	Signal	Picture Indicating	Bezel	Indicating Range	Working Voltage	Installation Dimension
KY11004	CPWR-BS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm
KY11001	CPWR-BS-240-33	240~33Ω					
KY11100	CPWR-WS-0-190	0~190Ω					
KY11101	CPWR-WS-240-33	240~33Ω					
KY11002	CPWR-BN-0-190	0~190Ω		SS 316 in black			
KY11003	CPWR-BN-240-33	240~33Ω					
KY11200	CPWR-BB-0-190	0~190Ω		plastic in black			
KY11201	CPWR-BB-240-33	240~33Ω					
KY11300	CPWR-WW-0-190	0~190Ω		plastic in white			
KY11301	CPWR-WW-240-33	240~33Ω					



VOLTMETER										
Art. No.	Model	Signal	Picture Indicating	Bezel		Display Range	Working Voltage	Installation Dimension		
KY13000	CPVR-BS-8-16	8~16V		SS 316		8~16V	12V	Φ52mm		
KY13100	CPVR-WS-8-16									
KY13013	CPVR-BN-8-16			SS 316 in black						
KY13200	CPVR-BB-8-16			plastic in black						
KY13304	CPVR-WW-8-16			plastic in white						
KY13001	CPVR-BS-18-32	18~32V		SS 316		18~32V	24V			
KY13101	CPVR-WS-18-32									
KY13012	CPVR-BN-18-32			SS 316 in black						
KY13201	CPVR-BB-18-32			plastic in black						
KY13305	CPVR-WW-18-32			plastic in white						

WATER TEMP.							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY14004	CPTR-BS-40-120	Matched with KUS temperature sensor		SS 316	40~120°C	12V/24V	Φ52mm
KY14100	CPTR-WS-40-120			SS 316			
KY14002	CPTR-BN-40-120			SS 316 in black			
KY14200	CPTR-BB-40-120			plastic in black			
KY14304	CPTR-WW-40-120			plastic in white			

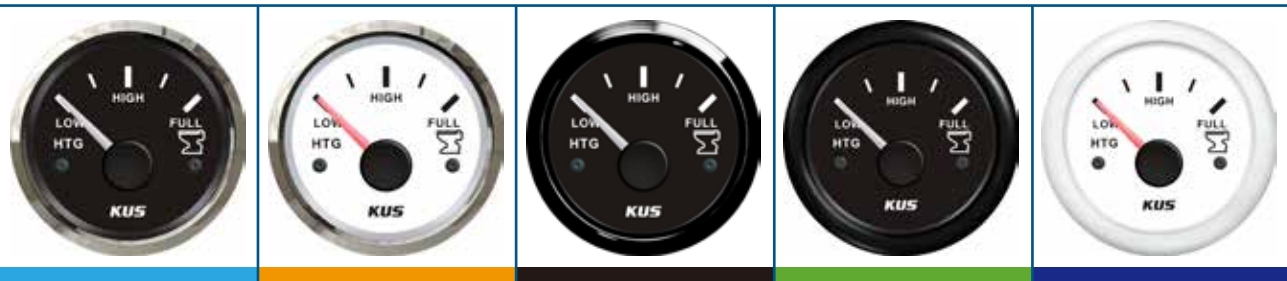
OIL TEMP.							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY14005	CPYR-BS-50-150	Matched with KUS temperature sensor		SS 316	50~150°C	12V/24V	Φ52mm
KY14102	CPYR-WS-50-150			SS 316			
KY14000	CPYR-BN-50-150			SS 316 in black			
KY14202	CPYR-BB-50-150			plastic in black			
KY14305	CPYR-WW-50-150			plastic in white			

TRIM							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY09205	CPIR-BS-0-190	0~190Ω		SS 316	DOWN-UP	12V/24V	Φ52mm
KY09103	CPIR-WS-0-190			SS 316			
KY09204	CPIR-BN-0-190			SS 316 in black			
KY09206	CPIR-BB-0-190			plastic in black			
KY09207	CPIR-WW-0-190			plastic in white			

TRIM							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY09028	CPIR-BS-0-190	0~190Ω		SS 316	UP-DOWN	12V/24V	Φ52mm
KY09115	CPIR-WS-0-190			SS 316			
KY09116	CPIR-BN-0-190			SS 316 in black			
KY09220	CPIR-BB-0-190			plastic in black			
KY09312	CPIR-WW-0-190			plastic in white			
KY09043	CPIR-BS-160-10	160~10Ω * To match with mercury or force engine.		SS 316	UP-DOWN	12V/24V	Φ52mm
KY09123	CPIR-WS-160-10			SS 316			
KY09044	CPIR-BN-160-10			SS 316 in black			
KY09228	CPIR-BB-160-10			plastic in black			
KY09314	CPIR-WW-160-10			plastic in white			



OIL PRESSURE							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY15000	CPPR-BS-0-5	10~184Ω 240-33Ω can be customized		SS 316	0~5Bar	12V/24V	Φ52mm
KY15100	CPPR-WS-0-5			SS 316			
KY15001	CPPR-BN-0-5			SS 316 in black			
KY15201	CPPR-BB-0-5			plastic in black			
KY15300	CPPR-WW-0-5			plastic in white			
KY15006	CPPR-BS-0-10			SS 316	0~10Bar		
KY15103	CPPR-WS-0-10			SS 316			
KY15008	CPPR-BN-0-10			SS 316 in black			
KY15202	CPPR-BB-0-10			plastic in black			
KY15303	CPPR-WW-0-10			plastic in white			

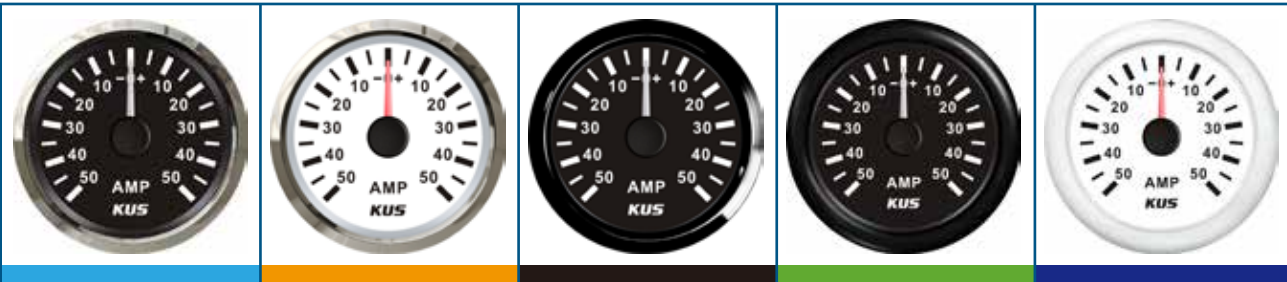
HOLDING TANK								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY12002	CPGR-BS-0-190	0~190Ω			SS 316	LOW-FULL	12V/24V	Φ52mm
KY12102	CPGR-WS-0-190				SS 316 in black			
KY12003	CPGR-BN-0-190				plastic in black			
KY12202	CPGR-BB-0-190				plastic in white			
KY12302	CPGR-WW-0-190							
KY12000	CPGR-BS-240-33	240~33Ω			SS 316	LOW-FULL	12V/24V	Φ52mm
KY12100	CPGR-WS-240-33				SS 316 in black			
KY12001	CPGR-BN-240-33				plastic in black			
KY12200	CPGR-BB-240-33				plastic in white			
KY12300	CPGR-WW-240-33							

RUDDER ANGLE										
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
KY09002	CMRR-BS-87-900	87~900Ω, Matched with JSM4480 rudder angle sensor.			SS 316	R-L	12V/24V	Φ52mm		
KY09102	CMRR-WS-87-900									
KY09004	CMRR-BN-87-900				SS 316 in black					
KY09201	CMRR-BB-87-900				plastic in black					
KY09305	CMRR-WW-87-900				plastic in white					
KY09011	CMRR-BS-0-190	0~190Ω, Matched with KE41000 rudder angle sensor.			SS 316					
KY09106	CMRR-WS-0-190									
KY09018	CMRR-BN-0-190				SS 316 in black					
KY09209	CMRR-BB-0-190				plastic in black					
KY09309	CMRR-WW-0-190				plastic in white					



CLOCK										
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
	KY09000	CMCR-BS-12	N/A		SS 316	12-hour format	12V/24V	Φ52mm		
	KY09100	CMCR-WS-12								
	KY09003	CMCR-BN-12			SS 316 in black					
	KY09202	CMCR-BB-12			plastic in black					
KY09304	CMCR-WW-12			plastic in white						

* Red backlight only

AMMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY06007	CMAR-BS±50	Matched with KUS 50A current shunt unit			SS 316	±50 A	12V/24V	Φ52mm
KY06103	CMAR-WS±50				SS 316 in black			
KY06008	CMAR-BN±50				plastic in black			
KY06201	CMAR-BB±50				plastic in white			
KY06301	CMAR-WW±50				plastic in white			
KY06005	CMAR-BS±80	Matched with KUS 100A current shunt unit			SS 316	±80 A		
KY06102	CMAR-WS±80				SS 316 in black			
KY06009	CMAR-BN±80				plastic in black			
KY06200	CMAR-BB±80				plastic in white			
KY06300	CMAR-WW±80				plastic in white			
KY06010	CMAR-BS±150	Matched with KUS 150A current shunt unit			SS 316	±150 A		
KY06101	CMAR-WS±150				SS 316 in black			
KY06011	CMAR-BN±150				plastic in black			
KY06203	CMAR-BB±150				plastic in white			
KY06302	CMAR-WW±150				plastic in white			



CURRENT SHUNT UNIT

- * The ammeter works exceptionally well with KUS current shunt unit.
- * The working voltage of KUS current shunt unit is 8~32VDC, which is compatible with most of the ammeters.
- * With Hall current testing method, KUS current shunt unit features long service life and accurate output. It also has the function of charge-discharge detection.

DIGITAL AMMETER									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KY26004	CEAR-BS±50	Matched with KUS 50A current shunt unit		SS 316	±50A	12V/24V	Φ52mm	
	KY26101	CEAR-WS±50							
	KY26000	CEAR-BN±50							SS 316 in black
	KY26200	CEAR-BB±50							plastic in black
	KY26300	CEAR-WW±50							plastic in white
KY26001	CEAR-BS±80	Matched with KUS 100A current shunt unit		SS 316	±80A				
KY26102	CEAR-WS±80								
KY26003	CEAR-BN±80					SS 316 in black			
KY26201	CEAR-BB±80					plastic in black			
KY26301	CEAR-WW±80					plastic in white			
KY26002	CEAR-BS±150	Matched with KUS 150A current shunt unit		SS 316	±150A				
KY26103	CEAR-WS±150								
KY26005	CEAR-BN±150					SS 316 in black			
KY26202	CEAR-BB±150					plastic in black			
KY26302	CEAR-WW±150					plastic in white			



3 LED ALARM INDICATOR										
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
	KY99300	SSS-PAN-3LED-BS	Switch Signal		SS 316	FULL-HIGH-ON	12V/24V	Φ52mm		
	KY99402	SSS-PAN-3LED-WS								
	KY99302	SSS-PAN-3LED-BN			SS 316 in black					
KY99200	SSS-PAN-3LED-BB			plastic in black						
KY99400	SSS-PAN-3LED-WW			plastic in white						

8 LED WATER LEVEL GAUGE							
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage
KY11021	CDWR-BS-240-33	240~33 Ω		SS 316	Empty-Full	12V/24V	Φ52mm
KY11113	CDWR-WS-240-33						
KY11114	CDWR-BN-240-33			SS 316 in black			
KY11207	CDWR-BB-240-33			plastic in black			
KY11305	CDWR-WW-240-33			plastic in white			

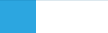
8 LED FUEL LEVEL GAUGE										
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
	KY10034	CDFR-BS-240-33	240~33 Ω		SS 316	Empty-Full	12V/24V	Φ52mm		
	KY10118	CDFR-WS-240-33								
	KY10036	CDFR-BN-240-33			SS 316 in black					
KY10216	CDFR-BB-240-33			plastic in black						
KY10309	CDFR-WW-240-33		plastic in white							

8 LED HOLDING TANK GAUGE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY12015	CDGR-BS-240-33	240~33 Ω		SS 316	Low-Full	12V/24V	Φ52mm
	KY12108	CDGR-WS-240-33						
	KY12018	CDGR-BN-240-33			SS 316 in black			
KY12204	CDGR-BB-240-33			plastic in black				
KY12304	CDGR-WW-240-33		plastic in white					

NAVIGATION INDICATOR								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY99304	CONR-BS-5LED	Matched with KUS controller		SS 316	N/A	12V/24V	Φ52mm
	KY99501	CONR-WS-5LED						
	KY99303	CONR-BN-5LED			SS 316 in black			
	KY99202	CONR-BB-5LED			plastic in black			
KY99403	CONR-WW-5LED			plastic in white				

4 LED ALARM GAUGE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY79002	CDQR-BS	Switch Signal		SS 316	N/A	12V/24V	Φ52mm
	KY79103	CDQR-WS						
	KY79004	CDQR-BN			SS 316 in black			
	KY79202	CDQR-BB			plastic in black			
KY79303	CDQR-WW			plastic in white				

DIGITAL WATER TEMP.								
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
KY24000	CETR-BS-25-120	Matched with KUS temperature sensor		SS 316	25~120°C	12V/24V	Φ52mm	
KY24100	CETR-WS-25-120							
KY24002	CETR-BN-25-120			SS 316 in black				
KY24200	CETR-BB-25-120			plastic in black				
KY24300	CETR-WW-25-120			plastic in white				

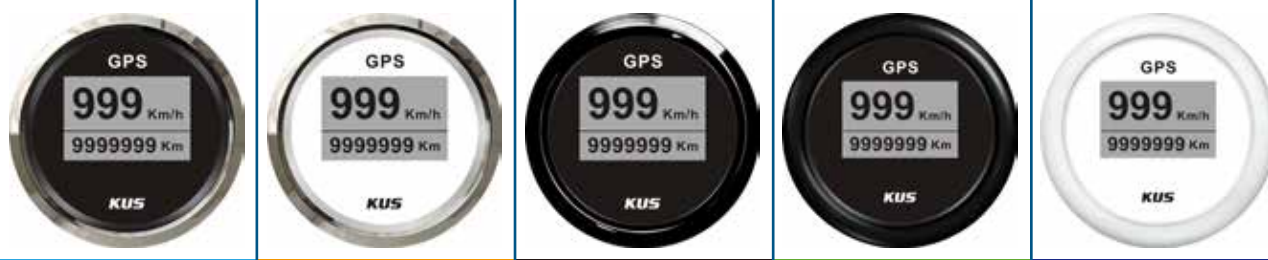
DIGITAL OIL PRESSURE							
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage
KY15042	CEPR-BS-0-5	10~184Ω		SS 316	0~5Bar	12V/24V	Φ52mm
KY15115	CEPR-WS-0-5			SS 316 in black			
KY15043	CEPR-BN-0-5			plastic in black			
KY15021	CEPR-BB-0-5			plastic in white			
KY15308	CEPR-WW-0-5						
KY15012	CEPR-BS-0-10	10~184Ω		SS 316	0~10Bar		
KY15015	CEPR-WS-0-10			SS 316 in black			
KY15035	CEPR-BN-0-10			plastic in black			
KY15022	CEPR-BB-0-10			plastic in white			
KY15307	CEPR-WW-0-10						

DIGITAL VOLTMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY23000	CEVR-BS-9-32	9~32V		SS 316	9~32V	12V/24V	Φ52mm
	KY23100	CEVR-WS-9-32						
	KY23001	CEVR-BN-9-32			SS 316 in black			
	KY23200	CEVR-BB-9-32			plastic in black			
KY23303	CEVR-WW-9-32			plastic in white				



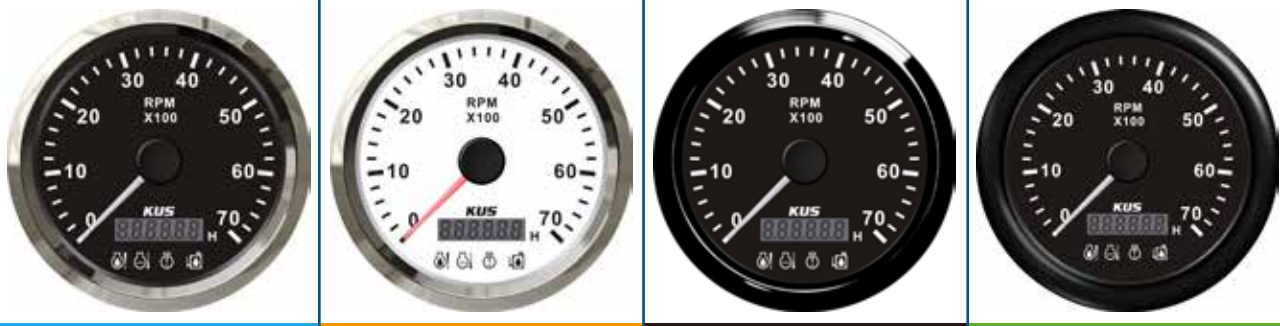
HOURMETER							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY39000	CCUR-BS	N/A		SS 316	0~99999	12V/24V	Φ52mm
KY39202	CCUR-WS						
KY39001	CCUR-BN			SS 316 in black			
KY39201	CCUR-BB			plastic in black			
KY39200	CCUR-WW			plastic in white			



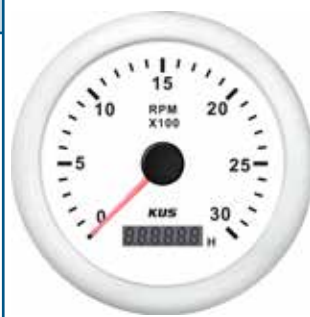
DIGITAL GPS SPEEDOMETER							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY08041	CCSR-BS	GPS		SS 316	0-999Km/h	12V/24V	Φ52mm
KY08120	CCSR-WS						
KY08056	CCSR-BN			SS 316 in black			
KY08217	CCSR-BB			plastic in black			
KY08309	CCSR-WW			plastic in white			
 * This Speedo has the function of mileage accumulation (Maximum 99999 Km), and data can be saved even the gauge is power down. * 5 meters long GPS antenna is included in the package, so it's no need to order it separately. * Red background light only.							



DIGITAL FUEL LEVEL							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY20001	CEFR-BS-0-190	0~190Ω		SS 316	0~100%	12V/24V	Φ52mm
KY20101	CEFR-WS-0-190						
JMV00352	CEFR-BN-0-190			SS 316 in black			
KY22001	CEFR-BB-0-190			plastic in black			
JMV00353	CEFR-WW-0-190			plastic in white			
KY20006	CEFR-BS-240-33	240~33Ω		SS 316	0~100%	12V/24V	Φ52mm
KY10116	CEFR-WS-240-33						
JMV00354	CEFR-BN-240-33			SS 316 in black			
KY10214	CEFR-BB-240-33			plastic in black			
JMV00355	CEFR-WW-240-33			plastic in white			

TACHOMETER with 4 LED ALARM							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY07046	CMHB-BS-7KL	1.0-10.0		SS 316	0~7000RPM	12V/24V	Φ85mm
KY07123	CMHB-WS-7KL						
KY07047	CMHB-BN-7KL			SS 316 in black			
KY07213	CMHB-BB-7KL			plastic in black			
KY07312	CMHB-WW-7KL			plastic in white			
							
* The light alarms including CHK ENG, Low Pressure, Low Fuel, Temperature.							

TACHOMETER									
									
Art. No.	Model	Speed Ratio	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
KY07025	CMHB-BS-3KL	1.0~10.0		SS 316	0~3000rpm	12V/24V	Φ85mm		
KY07116	CMHB-WS-3KL								
KY07026	CMHB-BN-3KL			SS 316 in black					
KY07208	CMHB-BB-3KL			plastic in black					
KY07310	CMHB-WW-3KL			plastic in white					
KY07008	CMHB-BS-4KL								
KY07105	CMHB-WS-4KL			SS 316					
KY07027	CMHB-BN-4KL			SS 316 in black					
KY07204	CMHB-BB-4KL			plastic in black					
KY07306	CMHB-WW-4KL			plastic in white					
KY07009	CMHB-BS-6KL								
KY07106	CMHB-WS-6KL			SS 316					
KY07028	CMHB-BN-6KL			SS 316 in black					
KY07205	CMHB-BB-6KL			plastic in black					
KY07307	CMHB-WW-6KL			plastic in white					
KY07010	CMHB-BS-8KL								
KY07107	CMHB-WS-8KL		SS 316						
KY07029	CMHB-BN-8KL		SS 316 in black						
KY07206	CMHB-BB-8KL		plastic in black						
KY07308	CMHB-WW-8KL		plastic in white						
KY07005	CMHB-BS-3KL	0.5~250		SS 316	0~3000rpm			12V/24V	Φ85mm
KY07111	CMHB-WS-3KL								
KY07014	CMHB-BN-3KL			SS 316 in black					
KY07209	CMHB-BB-3KL			plastic in black					
KY07309	CMHB-WW-3KL			plastic in white					
KY07043	CMHB-BS-4KL								
KY07102	CMHB-WS-4KL			SS 316					
KY07015	CMHB-BN-4KL			SS 316 in black					
KY07202	CMHB-BB-4KL			plastic in black					
KY07303	CMHB-WW-4KL			plastic in white					
KY07000	CMHB-BS-6KL								
KY07101	CMHB-WS-6KL			SS 316					
KY07016	CMHB-BN-6KL			SS 316 in black					
KY07200	CMHB-BB-6KL			plastic in black					
KY07302	CMHB-WW-6KL			plastic in white					
KY07003	CMHB-BS-8KL								
KY07103	CMHB-WS-8KL		SS 316						
KY07017	CMHB-BN-8KL		SS 316 in black						
KY07203	CMHB-BB-8KL		plastic in black						
KY07304	CMHB-WW-8KL		plastic in white						



* Note : The speed ratio is adjustable. Alternative ratio range is 1.0~10.0

* Note : The speed ratio is adjustable. Alternative ratio range is 0.5~250.0.



* Note : The speed ratio is adjustable. Alternative ratio range is 1.0~10.0

* Note : The speed ratio is adjustable. Alternative ratio range is 0.5~250.0.

NEW

DIGITAL TACHOMETER

Art. No.	Model	Speed Ratio	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
JMV00547	CCHB-BS-3KL	1.0~10.0		SS 316	0~3000rpm	12V/24V	Φ85mm		
JMV00549	CCHB-WS-3KL								
JMV00548	CCHB-BN-3KL			SS 316 in black					
JMV00546	CCHB-BB-3KL			plastic in black					
JMV00525	CCHB-WW-3KL			plastic in white	0~4000rpm				
JMV00560	CCHB-BS-4KL			SS 316					
JMV00561	CCHB-WS-4KL								
JMV00562	CCHB-BN-4KL			SS 316 in black					
JMV00563	CCHB-BB-4KL			plastic in black	0~6000rpm				
JMV00564	CCHB-WW-4KL			plastic in white					
JMV00551	CCHB-BS-6KL			SS 316					
JMV00550	CCHB-WS-6KL								
JMV00552	CCHB-BN-6KL		SS 316 in black	0~8000rpm					
JMV00553	CCHB-BB-6KL		plastic in black						
JMV00554	CCHB-WW-6KL		plastic in white						
JMV00558	CCHB-BS-8KL		SS 316						
JMV00559	CCHB-WS-8KL			0~3000rpm					
JMV00557	CCHB-BN-8KL		SS 316 in black						
JMV00556	CCHB-BB-8KL		plastic in black						
JMV00555	CCHB-WW-8KL		plastic in white						
JMV00533	CCHB-BS-3KL	0.5~250.0		SS 316	0~3000rpm			12V/24V	Φ85mm
JMV00535	CCHB-WS-3KL								
JMV00534	CCHB-BN-3KL			SS 316 in black					
JMV00532	CCHB-BB-3KL			plastic in black					
JMV00531	CCHB-WW-3KL			plastic in white	0~4000rpm				
JMV00526	CCHB-BS-4KL			SS 316					
JMV00527	CCHB-WS-4KL								
JMV00528	CCHB-BN-4KL			SS 316 in black					
JMV00529	CCHB-BB-4KL			plastic in black	0~6000rpm				
JMV00530	CCHB-WW-4KL			plastic in white					
JMV00537	CCHB-BS-6KL			SS 316					
JMV00536	CCHB-WS-6KL								
JMV00538	CCHB-BN-6KL			SS 316 in black	0~8000rpm				
JMV00539	CCHB-BB-6KL			plastic in black					
JMV00540	CCHB-WW-6KL			plastic in white					
JMV00544	CCHB-BS-8KL			SS 316					
JMV00545	CCHB-WS-8KL			0~8000rpm					
JMV00543	CCHB-BN-8KL		SS 316 in black						
JMV00542	CCHB-BB-8KL		plastic in black						
JMV00541	CCHB-WW-8KL		plastic in white						

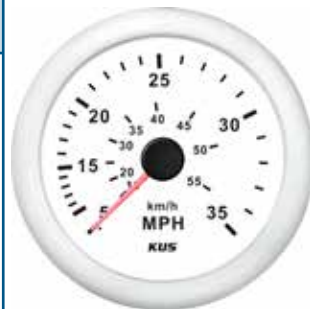
* Note : The speed ratio is adjustable. Alternative ratio range is 1.0~10.0.

* Note : The speed ratio is adjustable. Alternative ratio range is 0.5~250.0.



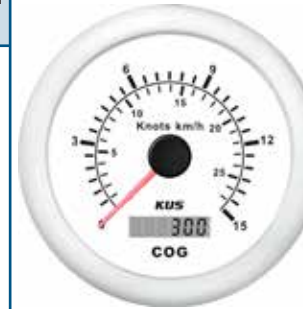
* Note : The speed ratio is adjustable. Alternative ratio range is 1.0~10.0.

* Note : The speed ratio is adjustable. Alternative ratio range is 0.5~250.0.

SPEEDOMETER												
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension					
KY18003	CPOB-BS-35	Pitot tube provides pressure signals		SS 316	0~35MPH	12V/24V	Φ85mm	* Pitot tube need ordered separately. Art. No. : JYM1060  Art. No. : JKE00284				
KY18102	CPOB-WS-35											
KY18010	CPOB-BN-35			SS 316 in black								
KY18204	CPOB-BB-35			plastic in black								
KY18304	CPOB-WW-35			plastic in white								
KY18002	CPOB-BS-55			SS 316	0~55MPH							
KY18101	CPOB-WS-55											
KY18011	CPOB-BN-55			SS 316 in black								
KY18203	CPOB-BB-55			plastic in black								
KY18303	CPOB-WW-55			plastic in white								
KY18004	CPOB-BS-65			SS 316	0~65MPH							
KY18103	CPOB-WS-65											
KY18009	CPOB-BN-65			SS 316 in black								
KY18206	CPOB-BB-65			plastic in black								
KY18306	CPOB-WW-65			plastic in white								

SPEEDOMETER								
								
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
KY08000	CMOB-BS-120L	Normal impulse		SS 316	0~120km/h	12V/24V	Φ85mm	
KY08100	CMOB-WS-120L							
KY08001	CMOB-BN-120L			SS 316 in black				
KY08200	CMOB-BB-120L			plastic in black				
KY08302	CMOB-WW-120L			plastic in white				
KY08015	CMOB-BS-200L			SS 316	0~200km/h			
KY08107	CMOB-WS-200L							
KY08016	CMOB-BN-200L			SS 316 in black				
KY08209	CMOB-BB-200L			plastic in black				
KY08306	CMOB-WW-200L			plastic in white				

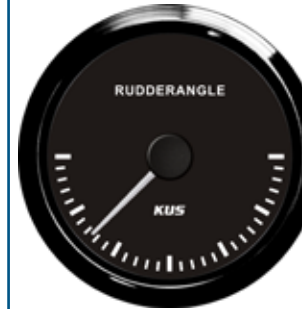
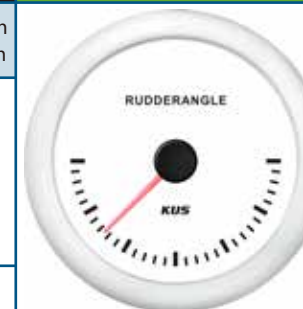
DIGITAL GPS SPEEDOMETER											
Art. No.	Model	Remarks	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension				
KY08021	CCSB-BS	I		SS 316	0~999Knots	12V/24V	Φ85mm				
KY08109	CCSB-WS			SS 316 in black							
KY08022	CCSB-BN			plastic in black							
KY08213	CCSB-BB			plastic in white							
KY08308	CCSB-WW			plastic in white							
KY08038	CCSB-BS	II		SS 316							
JMV00148	CCSB-WS			SS 316 in black							
KY08047	CCSB-BN			plastic in black							
JMV00149	CCSB-BB			plastic in black							
JMV00150	CCSB-WW			plastic in white							
I : The gauge has the function of accumulating the mileage of a single time, all data will reset when power on or unit switches.											
II : This Speedo has the function of mileage accumulation (Maximum 99999 Km), and data can be saved even the gauge is power down.											
 * Note: Customers can choose between units displaying in km/h, knots, or mph. The unit mileage and position are integrated into the display. The accumulated data will be cleared to zero after power off, it also can be customized for keeping the history data. * 5 meters long GPS antenna is included in the package, so it's no need to order it separately.											
Art. No.	Model	Remarks	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension				
JMV00359	CCSB-BS	III		SS 316	0~999Knots	12V/24V	Φ85mm				
JMV00360	CCSB-WS			SS 316 in black							
JMV00361	CCSB-BN			plastic in black							
JMV00362	CCSB-BB			plastic in white							
JMV00363	CCSB-WW			plastic in white							
JMV00364	CCSB-BS	IV		SS 316							
JMV00365	CCSB-WS			SS 316 in black							
JMV00366	CCSB-BN			plastic in black							
JMV00367	CCSB-BB			plastic in black							
JMV00368	CCSB-WW			plastic in white							
* With built-in GPS antenna.											
III: The gauge has the function of accumulating the mileage of a single time, all data will reset when power on or unit switches.											
IV: This Speedo had the function of mileage accumulation(Maximum 99999Km), and data can be saved even the gauge is power down.											

GPS SPEEDOMETER											
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension				
KY08017	CMSB-BS-15L	GPS		SS 316	0~15Knots	12V/24V	Φ85mm				
KY08108	CMSB-WS-15L			SS 316							
KY08018	CMSB-BN-15L			SS 316 in black							
KY08215	CMSB-BB-15L			plastic in black							
KY08307	CMSB-WW-15L			plastic in white							
KY08009	CMSB-BS-30L			SS 316	0~30Knots						
KY08105	CMSB-WS-30L			SS 316							
KY08019	CMSB-BN-30L			SS 316 in black							
KY08210	CMSB-BB-30L			plastic in black							
KY08303	CMSB-WW-30L			plastic in white							
KY08011	CMSB-BS-60L			SS 316	0~60Knots						
KY08103	CMSB-WS-60L			SS 316							
KY08020	CMSB-BN-60L			SS 316 in black							
KY08211	CMSB-BB-60L			plastic in black							
KY08304	CMSB-WW-60L			plastic in white							

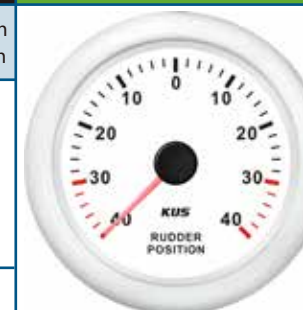


* 5 meters long GPS antenna is included in the package, so it's no need to order it separately.

Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
JMV00369	CMSB-BS-15L	GPS		SS 316	0~15Knots	12V/24V	Φ85mm	* With built-in GPS antenna.	
JMV00370	CMSB-WS-15L								
JMV00371	CMSB-BN-15L								SS 316 in black
JMV00372	CMSB-BB-15L								plastic in black
JMV00373	CMSB-WW-15L								plastic in white
JMV00374	CMSB-BS-30L			SS 316	0~30Knots				
JMV00375	CMSB-WS-30L								
JMV00376	CMSB-BN-30L								SS 316 in black
JMV00377	CMSB-BB-30L								plastic in black
JMV00378	CMSB-WW-30L								plastic in white
JMV00379	CMSB-BS-60L			SS 316	0~60Knots				
JMV00380	CMSB-WS-60L								
JMV00381	CMSB-BN-60L								SS 316 in black
JMV00382	CMSB-BB-60L								plastic in black
JMV00383	CMSB-WW-60L								plastic in white

RUDDER ANGLE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY09009	CMRB-BS-0-190	0~190Ω		SS 316	R-L	12V/24V	Φ85mm
	KY09105	CMRB-WS-0-190						
	KY09017	CMRB-BN-0-190			SS 316 in black			
KY09215	CMRB-BB-0-190			plastic in black				
KY09311	CMRB-WW-0-190			plastic in white				
* The rudder angle with Signal 0-190Ω can be matched with KE41000,.								
								

RUDDER ANGLE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KY09012	CMRB-BS-0-5K	0~5K		SS 316		12V/24V	Φ85mm
	JMV00390	CMRB-WS-0-5K			SS 316			
	KY09014	CMRB-BN-0-5K			SS 316 in black			
JMV00391	CMRB-BB-0-5K			plastic in black				
KY09313	CMRB-WW-0-5K		plastic in white					
* The rudder angle with Signal 0-5K can be matched with KE41002.								





EXHAUST TEMP. METER											
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension				
JMV00172	CMTR-BS-0-800	0~33.277 MV		SS 316	0-800	12V/24V	Φ52mm				
JMV00173	CMTR-WS-0-800										
JMV00342	CMTR-BN-0-800										
KY09214	CMTR-BB-0-800										
KY09308	CMTR-WW-0-800			plastic in white							
JMV00385	CMTR-BS-0-200			SS 316	0-200						
JMV00386	CMTR-WS-0-200										
JMV00387	CMTR-BN-0-200										
JMV00388	CMTR-BB-0-200										
JMV00389	CMTR-WW-0-200			plastic in white							

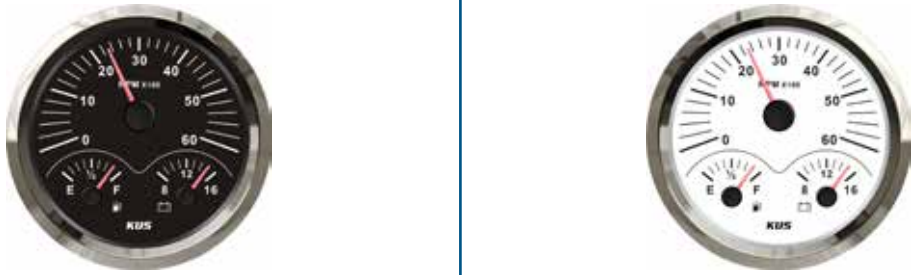


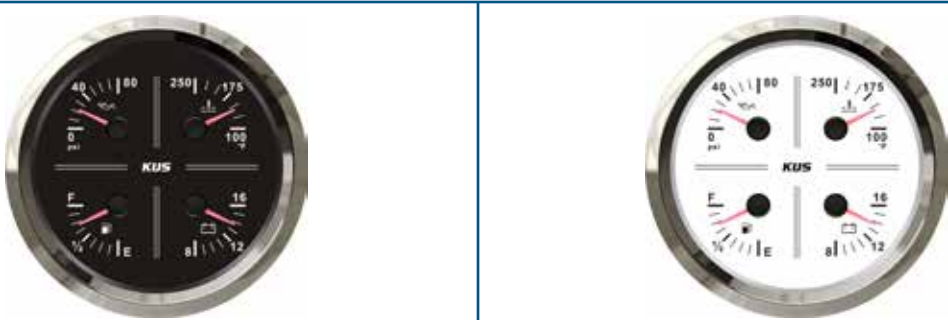
Exhaust Temperature Sensor

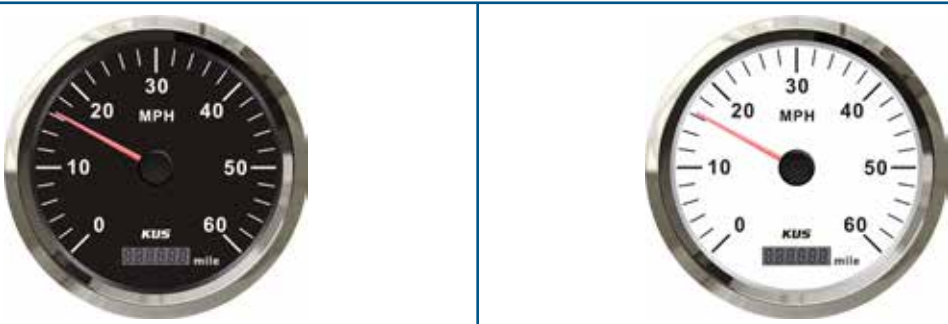
Used for sensing high temperatures such as exhaust gas. Standard K Type signal and ungrounded for use in both marine and automotive applications.

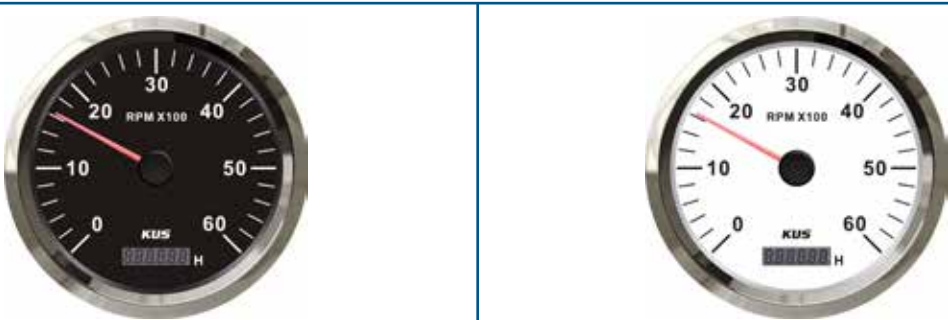
Art. No.: JYE0207
Range: 0 - 800°C
Main material: SS316
With 5M sheathed wire
Thread: PT 3/8"
Form ungrounded

Art. No.: 150210
Range: 0 - 200°C
Main material: SS316
With 3.5M sheathed wire
Thread: PT 3/8"
Form ungrounded

3 IN 1 MULTIFUNCTION							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
JMV00233	CMQE-BS-3	0-180ohm for fuel level meter; 8-16V voltage meter 0-6000RPM tachometer		SS 316	Fuel level meter: empty-full Voltmeter: 8-16v, Tachometer: 0-6000rpm	12V/24V	Φ110mm
JMV00234	CMQE-WS-3						

4 IN 1 MULTIFUNCTION							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
JMV00235	CMQE-BS-4	Input Signal : 10-184ohm for 0-10 bar oil pressure meter; 0-180ohm for fuel level meter; 8-16V voltage meter; Input Signal 310-20ohm for water temperature meter		SS 316	Oil press. meter: 0-80psi; Water temp. meter: 100-250F; Fuel level meter: empty-full; Voltmeter: 8-16v.	12V/24V	Φ110mm
JMV00236	CMQE-WS-4						

60MPH SPEEDOMETER							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
JMV00237	CMSE-BS-60	GPS		SS 316	0-60MPH	12V/24V	Φ110mm
JMV00238	CMSE-WS-60						

0-6000 RPM TACHOMETER							
							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
JMV00239	CMHE-BS-6KL	1.0-10.0		SS 316	0-6000 RPM	12V/24V	Φ110mm
JMV00240	CMHE-WS-6KL						

DIGITAL 4 IN 1
MULTIFUNCTION

Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KY79000	P4-VTPR-BS	as below		SS 316	as below	12V/24V	Φ85mm
KY79102	P4-VTPR-WS			SS 316			
JMV00356	P4-VTPR-BN			SS 316 in black			
JMV00357	P4-VTPR-BB			plastic in black			
JMV00358	P4-VTPR-WW			plastic in white			

Signal

Input Signal 310-20ohm for water temp. meter;
Input Signal : 10-184ohm for oil pressure meter;
0-6000RPM tachometer.
Speedo Ratio : 0.5-250.0

Display Range

Voltmeter: 9-32V
Water temp. meter: 20-120°C
Oil pressure meter:0-1mpa
Tachometer: 0-6000rpm

Gauge Accessories

Gauge Holder

Art. No.	Size	Material
JYA0061	52 mm	Alu.
JYA0062	85 mm	



GAUGE BEZEL(Plastic)

* The above bezels are only for plastic bezel gauge replacement, not applicable for the stainless steel bezel gauge.



Art. No.	Size	Color
160001	52 mm	White Plastic
160041	85 mm	
160000	52 mm	Black Plastic
160040	85 mm	
160003	52 mm	Golden Plastic
JYP1556	85 mm	
160002	52 mm	Sliver Plastic
160042	85 mm	



Sea Q Series

Premium Quality, Professional Choice.



Features:

- Front side has IP67 protection rating; back side has IP65 protection rating;
- Double layer reinforced anti-fogging glass;
- 316 Stainless steel bezel with convex glass;
- Quick and easy to install by terminal;
- Selection of red or yellow backlight, without connector cable;
- Connect directly without extra resistors for 12/24V working voltage.

Optional part	
Art. No.	JYS0302
Length of wire	400 mm

FUEL LEVEL							
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage
KF10020	FPFR-BS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm
KF10022	FPFR-BS-240-33	240~33Ω					
KF10114	FPFR-WS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm
KF10115	FPFR-WS-240-33	240~33Ω					
KF10026	FPFR-BN-0-190	0~190Ω		SS 316 in black	Empty-Full	12V/24V	Φ52mm
KF10027	FPFR-BN-240-33	240~33Ω					

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WATER LEVEL								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KF11015	FPWR-BS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm	
KF11017	FPWR-BS-240-33	240~33Ω						
KF11110	FPWR-WS-0-190	0~190Ω		SS 316	Empty-Full	12V/24V	Φ52mm	
KF11111	FPWR-WS-240-33	240~33Ω						
KF11016	FPWR-BN-0-190	0~190Ω		SS 316 in black	Empty-Full	12V/24V	Φ52mm	
KF11018	FPWR-BN-240-33	240~33Ω						

HOLDING TANK								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF12010	FPGR-BS-0-190	0~190Ω		SS 316	LOW-FUL	12V/24V	Φ52mm
	KF12012	FPGR-BS-240-33	240~33Ω					
	KF12106	FPGR-WS-0-190	0~190Ω		SS 316	LOW-FUL	12V/24V	Φ52mm
	KF12107	FPGR-WS-240-33	240~33Ω					
	KF12011	FPGR-BN-0-190	0~190Ω		SS 316 in black	LOW-FUL	12V/24V	Φ52mm
	KF12013	FPGR-BN-240-33	240~33Ω					

WATER TEMP.								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF14024	FPTR-BS-40-120	Matched with KUS temperature sensor		SS 316	40~120℃	12V/24V	Φ52mm
	KF14107	FPTR-WS-40-120						
KF14025	FPTR-BN-40-120			SS 316 in black				

OIL TEMP.									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF14026	FPYR-BS-50-150	Matched with KUS temperature sensor		SS 316	50~150°C	12V/24V	Φ52mm	
	KF14108	FPYR-WS-50-150							
	KF14027	FPYR-BN-50-150			SS 316 in black				

VOLTMETER									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF13017	FPVR-BS-8-16	8~16V		SS 316	8~16V	12V	Φ52mm	
	KF13107	FPVR-WS-8-16							
	KF13018	FPVR-BN-8-16			SS 316 in black				
	KF13016	FPVR-BS-18-32	18~32V		SS 316	18~32V	24V	Φ52mm	
	KF13108	FPVR-WS-18-32							
	KF13019	FPVR-BN-18-32			SS 316 in black				

OIL PRESSURE									
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
KF15036	FPPR-BS-0-5	10~184Ω		SS 316	0~5Bar	12V/24V	Φ52mm		
KF15112	FPPR-WS-0-5								
KF15037	FPPR-BN-0-5			SS 316 in black					
KF15038	FPPR-BS-0-10			SS 316	0~10Bar				
KF15113	FPPR-WS-0-10								
KF15039	FPPR-BN-0-10			SS 316 in black					

RUDDER ANGLE									
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension		
KF09019	FMRR-BS-87-900	87~900Ω, Matched with JSM4480 rudder angle sensor.		SS 316	R-L	12V/24V	Φ52mm		
KF09110	FMRR-WS-87-900								
KF09020	FMRR-BN-87-900			SS 316 in black					
KF09021	FMRR-BS-0-190	0~190Ω, Matched with KE41000 rudder angle sensor.		SS 316					
KF09111	FMRR-WS-0-190								
KF09022	FMRR-BN-0-190			SS 316 in black					

* Installation: Customers can easily adjust the deviations caused by assembling or sensor signal difference.

TRIM									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF09023	FPIR-BS-0-190	0~190Ω		SS 316	DOWN-UP	12V/24V	Φ52mm	
	KF09113	FPIR-WS-0-190							
	KF09024	FPIR-BN-0-190			SS 316 in black				

TRIM									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF09030	FPIR-BS-0-190	0~190Ω		SS 316	DOWN-UP	12V/24V	Φ52mm	
	KF09116	FPIR-WS-0-190							
	KF09031	FPIR-BN-0-190			SS 316 in black				

DIGITAL VOLTMETER									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF23005	FEVR-BS-9-32	9~32V		SS 316	9~32V	12V/24V	Φ52mm	
	KF23105	FEVR-WS-9-32							
KF23006	FEVR-BN-9-32			SS 316 in black					

HOURMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF39002	FCUR-BS	N/A		SS 316	0~99999	12V/24V	Φ52mm
	KF39101	FCUR-WS			SS 316			
KF39003	FCUR-BN			SS 316 in black				

DIGITAL WATER TEMP.									
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
	KF24006	FETR-BS-25-120	Matched with KUS temperature sensor		SS 316	25~120°C	12V/24V	Φ52mm	
	KF24101	FETR-WS-25-120							
KF24007	FETR-BN-25-120			SS 316 in black					

DIGITAL OIL PRESSURE							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KF15044	FEPR-BS-0-5	10~184Ω		SS 316	0~5Bar	12V/24V	Φ52mm
KF15116	FEPR-WS-0-5						
KF15045	FEPR-BN-0-5						
KF15040	FEPR-BS-0-10	10~184Ω		SS 316	0~10Bar		
KF15114	FEPR-WS-0-10						
KF15041	FEPR-BN-0-10						

DIGITAL AMMETER							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KF26008	FEAR-BS±50	Matched with KUS current pick-up unit		SS 316	±50A	12V/24V	Φ52mm
KF26105	FEAR-WS±50			SS 316			
KF26009	FEAR-BN±50			SS 316 in black			
KF26010	FEAR-BS±80	Matched with KUS current pick-up unit		SS 316	±80A		
KF26106	FEAR-WS±80			SS 316			
KF26011	FEAR-BN±80			SS 316 in black			
KF26006	FEAR-BS±150	Matched with KUS current pick-up unit		SS 316	±150A		
KF26104	FEAR-WS±150			SS 316			
KF26007	FEAR-BN±150			SS 316 in black			

4 LED ALARM GAUGE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF79003	FDQR-BS	Switch Signal		SS 316	N/A	12V/24V	Φ52mm
	KF79104	FDQR-WS			SS 316			
KF79005	FDQR-BN			SS 316 in black				

DIGITAL FUEL LEVEL							
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
KF20005	FEFR-BS-0-190	0-190Ω		SS 316	0~100%	12V/24V	Φ52mm
JMQ00025	FEFR-WS-0-190						
JMQ00026	FEFR-BN-0-190			SS 316 in black			
JMQ00027	FEFR-BS-240-33	240-33Ω		SS 316			
JMQ00028	FEFR-WS-240-33						
JMQ00029	FEFR-BN-240-33			SS 316 in black			



GPS SPEEDOMETER								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF08029	FMSB-BS-15L	GPS		SS 316	0~15Knots	12V	Φ85mm
	KF08113	FMSB-WS-15L			SS 316 in black			
	KF08030	FMSB-BN-15L			SS 316	0~30Knots		
	KF08031	FMSB-BS-30L			SS 316 in black			
	KF08114	FMSB-WS-30L			SS 316	0~60Knots		
	KF08032	FMSB-BN-30L			SS 316 in black			
	KF08033	FMSB-BS-60L			SS 316			
	KF08115	FMSB-WS-60L			SS 316 in black			
KF08034	FMSB-BN-60L			SS 316 in black				
 * 5 meters long GPS antenna is included in the package, so it's no need to order it separately.								
Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
JMQ00030	FMSB-BS-15L	GPS		SS 316	0~15Knots	12V	Φ85mm	
JMQ00031	FMSB-WS-15L			SS 316 in black				
JMQ00032	FMSB-BN-15L			SS 316	0~30Knots			
JMQ00033	FMSB-BS-30L			SS 316 in black				
JMQ00034	FMSB-WS-30L			SS 316	0~60Knots			
JMQ00035	FMSB-BN-30L			SS 316 in black				
JMQ00036	FMSB-BS-60L			SS 316				
JMQ00037	FMSB-WS-60L			SS 316 in black				
JMQ00038	FMSB-BN-60L			SS 316 in black				
* With built-in GPS antenna.								



TACHOMETER								
	Art. No.	Model	Speed Ratio	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF07018	FMHB-BS-3KL	0.5~250.0		SS 316	0~3000rpm	12V/24V	Φ85mm
	KF07112	FMHB-WS-3KL			SS 316 in black			
KF07019	FMHB-BN-3KL			SS 316				
KF07020	FMHB-BS-4KL	0.5~250.0		SS 316	0~4000rpm			
KF07113	FMHB-WS-4KL			SS 316 in black				
KF07021	FMHB-BN-4KL			SS 316				
KF07012	FMHB-BS-6KL	0.5~250.0		SS 316	0~6000rpm			
KF07114	FMHB-WS-6KL			SS 316 in black				
KF07022	FMHB-BN-6KL			SS 316				
KF07023	FMHB-BS-8KL	0.5~250.0		SS 316	0~8000rpm			
KF07115	FMHB-WS-8KL			SS 316 in black				
KF07024	FMHB-BN-8KL							
* Note : The speed ratio is adjustable. Alternative ratio range is 0.5~250.0								
Art. No.	Model	Speed Ratio	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension	
JMQ00018	FMHB-BS-3KL	1.0~10.0		SS 316	0~3000rpm	12V/24V	Φ85mm	
JMQ00019	FMHB-WS-3KL			SS 316 in black				
JMQ00020	FMHB-BN-3KL			SS 316				
KF07033	FMHB-BS-4KL	1.0~10.0		SS 316	0~4000rpm			
JMQ00021	FMHB-WS-4KL			SS 316 in black				
JMQ00022	FMHB-BN-4KL			SS 316				
KF07035	FMHB-BS-6KL	1.0~10.0		SS 316	0~6000rpm			
KF07118	FMHB-WS-6KL			SS 316 in black				
JMQ00023	FMHB-BN-6KL			SS 316				
KF07037	FMHB-BS-8KL	1.0~10.0		SS 316	0~8000rpm			
KF07119	FMHB-WS-8KL			SS 316 in black				
JMQ00024	FMHB-BN-8KL							
* Note : The speed ratio is adjustable. Alternative ratio range is 1.0~10.0								



RUDDER ANGLE								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	JMQ00001	FMRB-BS-0-190	0~190Ω		SS 316	R-L	12V/24V	Φ85mm
	JMQ00002	FMRB-WS-0-190						
JMQ00003	FMRB-BN-0-190			SS 316 in black				

* The rudder angle can be matched with the KE41000 rudder angle sensor.

SPEEDOMETER (MPH+KMH)								
	Art. No.	Model	Signal	Picture Indicating	Bezel	Display Range	Working Voltage	Installation Dimension
	KF18012	FPOB-BS-35	Pitot tube provides pressure signals		SS 316	0~35MPH	12V/24V	Φ85mm
KF18108	FPOB-WS-35							
KF18013	FPOB-BN-35			SS 316 in black				
KF18014	FPOB-BS-55			SS 316	0~55MPH			
KF18109	FPOB-WS-55							
KF18015	FPOB-BN-55					SS 316 in black		
KF18016	FPOB-BS-65			SS 316	0~65MPH			
KF18110	FPOB-WS-65							
KF18017	FPOB-BN-65					SS 316 in black		



Art. No. : JYM1060(White)/JKE00284(Black)

The pitot tube is to match with both SEAV series and SEAQ series speedometer. It's not included in the package, and need to order separately.

Gauge Panel Series

The marine gauge panels were designed to meet customer needs. Its elegant and simple design allows easy assembly and convenient routine maintenance. Acousto-optic alarming, over current protection, and over voltage protection and other features are integrated in the gauge panel. The gauge panels' color, size, functions and working voltage of 12V or 24V can be customized.



P/N	Gauge Panel	
Art. No.	KY89915	KY89903
Working Voltage	12V	24V
Matching sensor	Magnetoelectric Tacho Sensor : M16*1.5 Water temp. sensor: 90°C alarm, M16*1.5 Pressure sensor : 0-10bar, 0.8bar alarm NPT 1/8	
Installation Dimension	335*200*125mm	



P/N	Gauge Panel	
Art. No.	KY89912	
Working Voltage	24V	
Matching sensor	Magnetoelectric Tacho Sensor : M16*1.5 Water temp. sensor: 90°C alarm, M16*1.5 Pressure sensor : 0-10bar, 0.8bar alarm NPT 1/8	
Installation Dimension	386*198*130mm	



P/N	Gauge Panel	
Art. No.	JMV00339	
Working Voltage	12V/24V	
Matching sensor	matched with CAN-BUS protocol	
Installation Dimension	270*170*70mm	



P/N	Gauge Panel	
Art. No.	KY89911	KY89910
Working Voltage	12V	24V
Matching sensor	Magnetoelectric Tacho Sensor : M16*1.5 Water temp. sensor: 90°C alarm, M16*1.5 Pressure sensor : 0-10bar, 0.8bar alarm NPT 1/8	
Installation Dimension	243*196*130mm	



P/N	Gauge Panel	
Art. No.	KY89904	KY89905
Working Voltage	12V	24V
Matching sensor	Magnetoelectric Tacho Sensor : M16*1.5 Water temp. sensor: 90°C alarm, M16*1.5 Pressure sensor : 0-10bar, 0.8bar alarm NPT 1/8	
Installation Dimension	335*200*125mm	



P/N	Gauge Panel	
Art. No.	KY89923	
Working Voltage	12V/24V	
Installation Dimension	250*190mm	



P/N	KUS-3	
Art. No.	KY89929	
Working Voltage	12V	
Installation Dimension	190*75.5 mm	



P/N	Gauge Panel	
Art. No.	KY89924	
Working Voltage	12V/24V	
Installation Dimension	190*88 mm	



P/N	P2	
Art. No.	KY79902	
Working Voltage	12V	
Installation Dimension	100.5*79 mm	

Fishing Parts

www.kusauto.com



Pole Holder

Art. No.	Spec.	Material
180040	length: 155mm	SS 316



Pole Holder

Art. No.	Spec.	Material
180041	length: 155mm	SS 316



Plastic Holder

Art. No.	Spec.	Material
180061	Packing Size:250*180mm Color: White	PP



Towel Clip

Art. No.	Spec.	Material
180034	Large size: 30mm Color: Blue	PP
180030	Large size: 30mm Color: Black	PP
180031	Large size: 30mm Color: White	PP



Pole Holder Clip

Art. No.	Spec.	Material
180080	Size: 28-32mm	POM+SS316



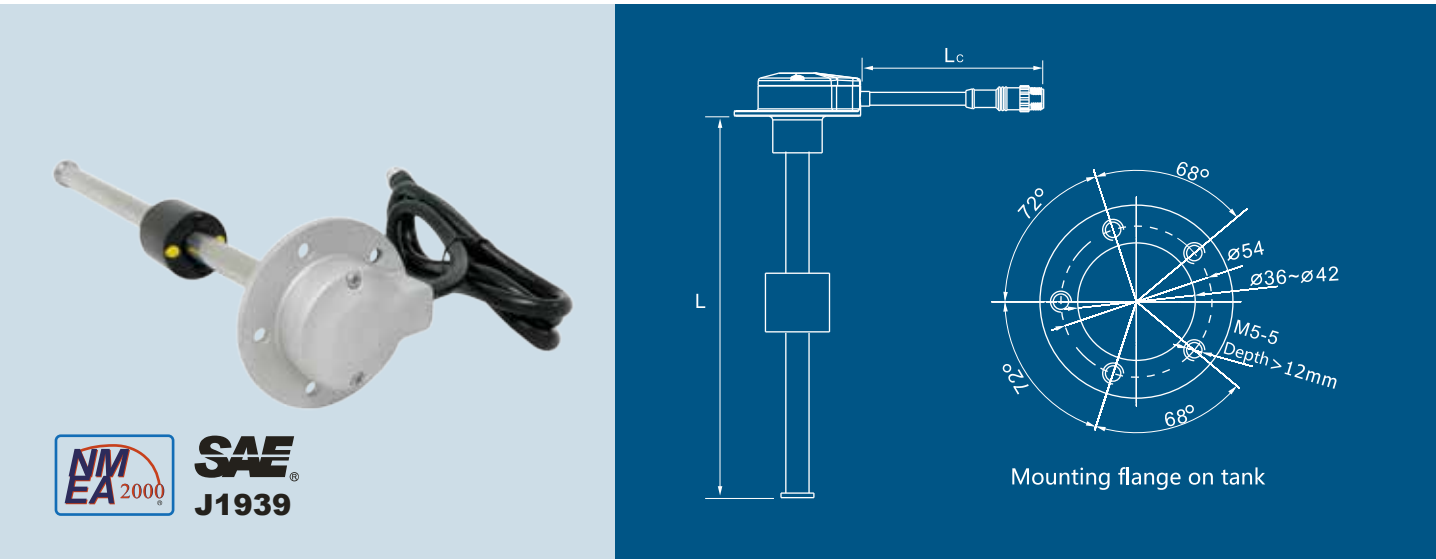
Sensor Series

Premium Quality, Professional Choice.



NS5 Series

www.kusauto.comSS



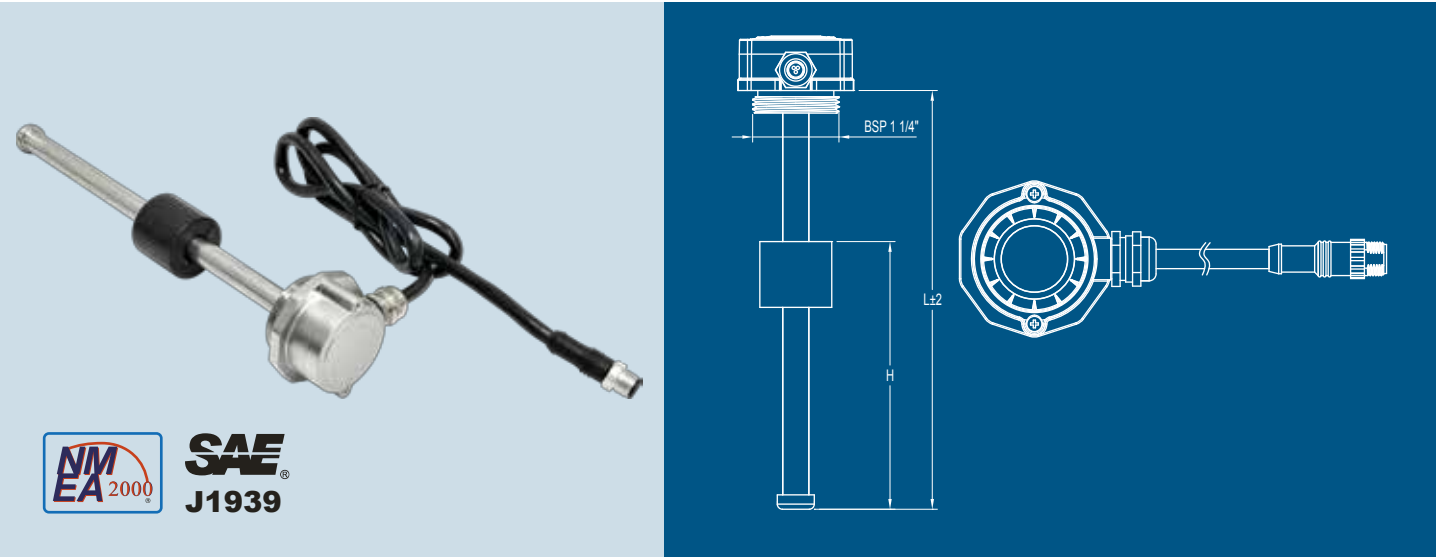
- ◆ Material: The main body is made of SS316 stainless steel
- ◆ Length range: 100 ~ 2000 mm. It also can be customized according to your requirements.
- ◆ Mounting: SAE standard 5 holes, other mounting methods available.
- ◆ Accessories: -5 x M5 screws
-2 mm thick NBR gasket.
If installing on a gas tank, we recommend the optional 2mm thick FPM gasket.
- ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 720mW
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Male "Micro-C" Pinout
- Output signal: NMEA 2000/J1939 network messages
- Resolution range: 10~40 mm
- Operating temperature: -30°C~+80°C

Art. No.	Product Name	Specification
JKS03922	NS5-150mm	Output Signal: NMEA2000 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-16V Logo: KUS
JKS03923	NS5-200mm	
JKS03924	NS5-225mm	
JKS03925	NS5-250mm	
JKS03926	NS5-275mm	
JKS03927	NS5-300mm	
JKS03928	NS5-350mm	
JKS03929	NS5-400mm	
JKS03930	NS5-450mm	
JKS03931	NS5-500mm	
JKS03932	NS5-550mm	
JKS03933	NS5-600mm	
JKS03934	NS5-650mm	
JKS03935	NS5-700mm	
JKS03936	NS5-750mm	
JKS03937	NS5-800mm	

Art. No.	Product Name	Specification
JKS02823	NS5-150mm	Output Signal: J1939 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-32V Logo: KUS
JKS02824	NS5-200mm	
JKS02825	NS5-225mm	
JKS02826	NS5-250mm	
JKS02827	NS5-275mm	
JKS02828	NS5-300mm	
JKS02829	NS5-350mm	
JKS02830	NS5-400mm	
JKS02831	NS5-450mm	
JKS02832	NS5-500mm	
JKS02833	NS5-550mm	
JKS02834	NS5-600mm	
JKS02835	NS5-650mm	
JKS02836	NS5-700mm	
JKS02837	NS5-750mm	
JKS02838	NS5-800mm	



NS3 Series

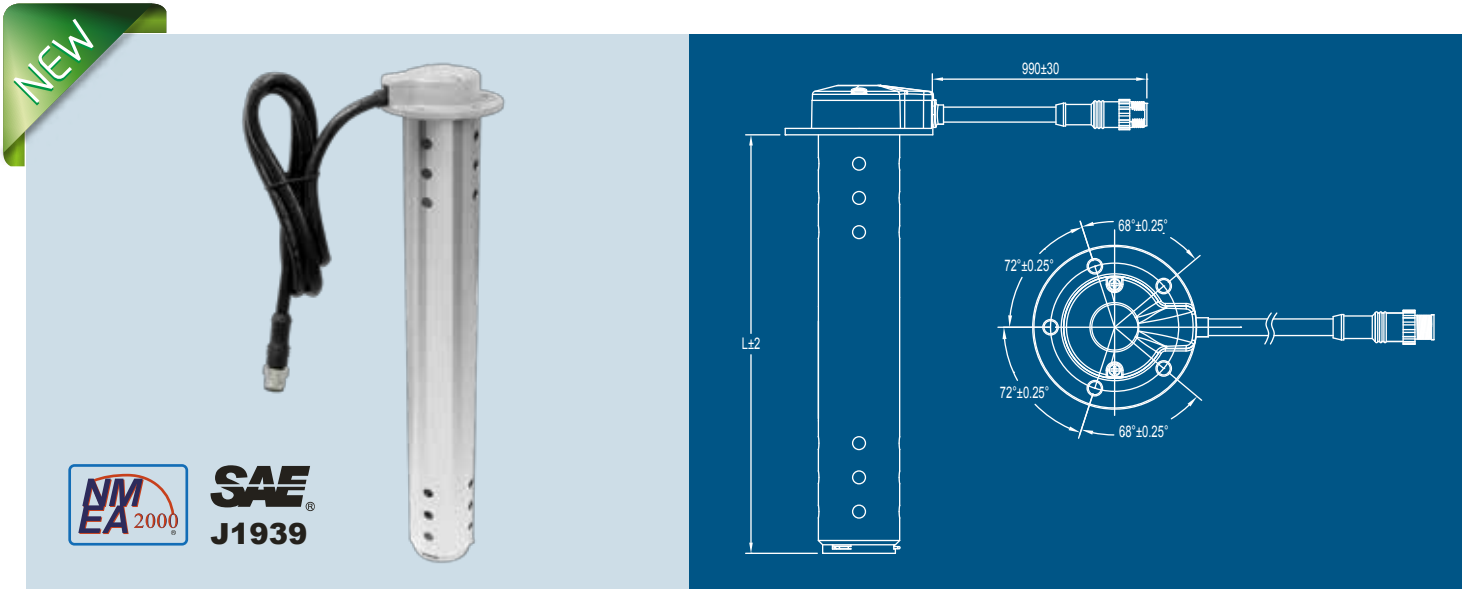


- ◆ Material:
The main body is made of SS316 stainless steel.
- ◆ Length range:
100~2000mm. It also can be customized according to your requirements.
- ◆ Assembly:
BSP 1 1/4" thread twist-in, or NPT thread twist-in. Various types of flanges are available for fitting fuel tank if necessary.
- ◆ Mounting:
-38mm x2.6mm O-ring
-43mm x3.5mm O-ring
- ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 720mW
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Male "Micro-C" Pinout
- Output signal: NMEA 2000/J1939 network messages
- Resolution range: 10~40 mm
- Operating temperature: -30°C~ +80°C

Art. No.	Product Name	Specification
JKS02789	NS3-150mm	Output Signal: NMEA2000 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-16V Logo: KUS
JKS02790	NS3-200mm	
JKS02791	NS3-225mm	
JKS02792	NS3-250mm	
JKS02793	NS3-275mm	
JKS02794	NS3-300mm	
JKS02795	NS3-350mm	
JKS02796	NS3-400mm	
JKS02797	NS3-450mm	
JKS02798	NS3-500mm	
JKS02799	NS3-550mm	
JKS02800	NS3-600mm	
JKS02801	NS3-650mm	
JKS02802	NS3-700mm	
JKS02803	NS3-750mm	
JKS02804	NS3-800mm	

Art. No.	Product Name	Specification
JKS02839	NS3-150mm	Output Signal: J1939 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-32V Logo: KUS
JKS02840	NS3-200mm	
JKS02841	NS3-225mm	
JKS02842	NS3-250mm	
JKS02843	NS3-275mm	
JKS02844	NS3-300mm	
JKS02845	NS3-350mm	
JKS02846	NS3-400mm	
JKS02847	NS3-450mm	
JKS02848	NS3-500mm	
JKS02849	NS3-550mm	
JKS02850	NS3-600mm	
JKS02851	NS3-650mm	
JKS02852	NS3-700mm	
JKS02853	NS3-750mm	
JKS02854	NS3-800mm	

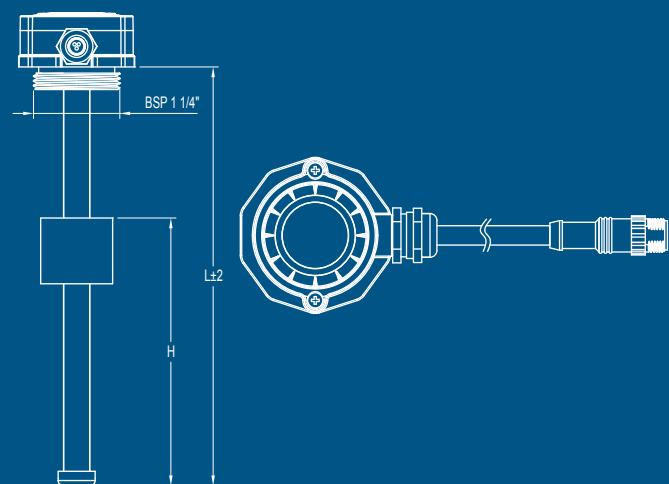
NS5H Series



- ◆ Uses: Mainly used in black water or grey water tanks. Can also be used in fresh water tanks.
- ◆ Material:
The main body is made of SS316 stainless steel.
- ◆ Length range:
100~1500mm. It also can be customized according to your requirements.
- ◆ Using NPT thread to fix and seal the sensor and flange, with addition of Teflon tape belts to seal if necessary.
- ◆ Mounting:
SAE standard 5 holes, other mounting methods available.
- ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 720mW
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Male "Micro-C" Pinout
- Output signal: NMEA 2000/J1939 network messages
- Resolution range: 10~40 mm
- Operating temperature: -30°C~ +80°C

Art. No.	Product Name	Specification
JKS03753	NS5H-150mm	Output Signal: NMEA2000 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-16V Logo: KUS
JKS03754	NS5H-200mm	
JKS03755	NS5H-225mm	
JKS03756	NS5H-250mm	
JKS03757	NS5H-275mm	
JKS03758	NS5H-300mm	
JKS03759	NS5H-350mm	
JKS03760	NS5H-400mm	
JKS03761	NS5H-450mm	
JKS03762	NS5H-500mm	
JKS03763	NS5H-550mm	
JKS03764	NS5H-600mm	
JKS03765	NS5H-650mm	
JKS03766	NS5H-700mm	
JKS03767	NS5H-750mm	
JKS03768	NS5H-800mm	

Art. No.	Product Name	Specification
JKS03769	NS5H-150mm	Output Signal: J1939 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-32V Logo: KUS
JKS03770	NS5H-200mm	
JKS03771	NS5H-225mm	
JKS03772	NS5H-250mm	
JKS03773	NS5H-275mm	
JKS03774	NS5H-300mm	
JKS03775	NS5H-350mm	
JKS03776	NS5H-400mm	
JKS03777	NS5H-450mm	
JKS03778	NS5H-500mm	
JKS03779	NS5H-550mm	
JKS03780	NS5H-600mm	
JKS03781	NS5H-650mm	
JKS03782	NS5H-700mm	
JKS03783	NS5H-750mm	
JKS03784	NS5H-800mm	

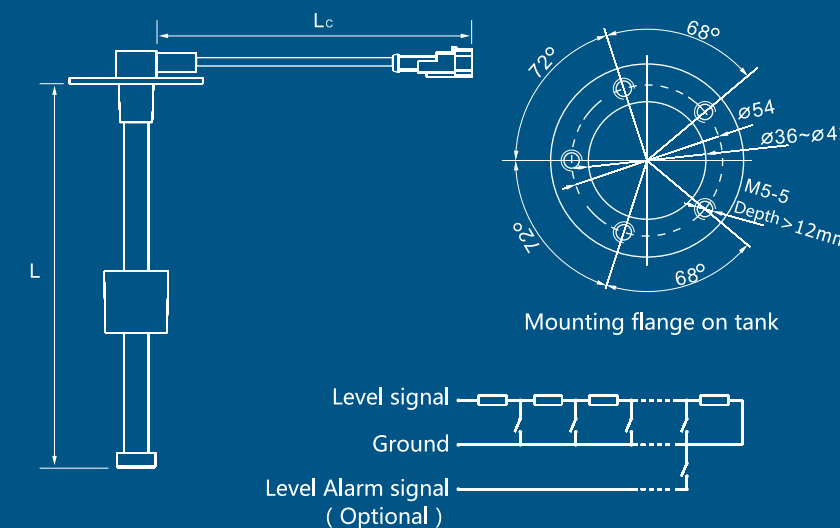


- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 720mW
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Male "Micro-C" Pinout
- Output signal: NMEA 2000/J1939 network messages
- Resolution range: 10~40 mm
- Operating temperature: -30°C~+80°C

Art. No.	Product Name	Specification
JKS03721	NS3H-150mm	Output Signal: NMEA2000 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-16V Logo: KUS
JKS03722	NS3H-200mm	
JKS03723	NS3H-225mm	
JKS03724	NS3H-250mm	
JKS03725	NS3H-275mm	
JKS03726	NS3H-300mm	
JKS03727	NS3H-350mm	
JKS03728	NS3H-400mm	
JKS03729	NS3H-450mm	
JKS03730	NS3H-500mm	
JKS03731	NS3H-550mm	
JKS03732	NS3H-600mm	
JKS03733	NS3H-650mm	
JKS03734	NS3H-700mm	
JKS03735	NS3H-750mm	
JKS03736	NS3H-800mm	

Art. No.	Product Name	Specification
JKS03737	NS3H-150mm	Output Signal: J1939 Network Messages Length of wire: 980mm Gasket: NBR Alarm: No Material: SS316 Working Voltage: 9-32V Logo: KUS
JKS03738	NS3H-200mm	
JKS03739	NS3H-225mm	
JKS03740	NS3H-250mm	
JKS03741	NS3H-275mm	
JKS03742	NS3H-300mm	
JKS03743	NS3H-350mm	
JKS03744	NS3H-400mm	
JKS03745	NS3H-450mm	
JKS03746	NS3H-500mm	
JKS03747	NS3H-550mm	
JKS03748	NS3H-600mm	
JKS03749	NS3H-650mm	
JKS03750	NS3H-700mm	
JKS03751	NS3H-750mm	
JKS03752	NS3H-800mm	

S5 Series

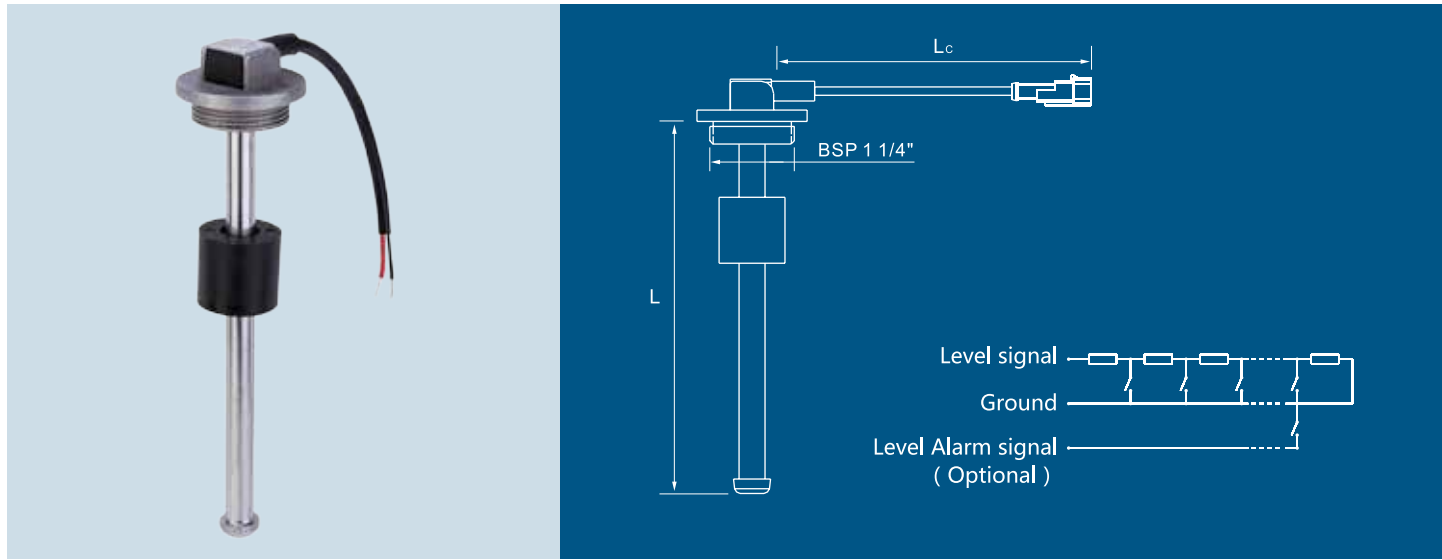


- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 125mW
- Max current: 500mA
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Delphi, Tyco, or others are available according to customer's requirements.
- Output signal:
Resistance control signal, 0~190Ω, 240~33Ω, or customized as required; You can also choose current control signal, 0~20mA, 4~20mA or Voltage control signal, 0.5~4.5VDC, 0~5VDC.
- Resolution range: 10~40mm
- Operating temperature: -40°C ~ +85°C



* Please contact us for more details.

S3 Series



- ◆ **Material:** The main body is made of SS316 or SS304 stainless steel
 - ◆ **Length range:** 100~2000mm. It also can be customized according to your requirements.
 - ◆ **Assembly:** BSP 1 1/4" thread twist-in, or NPT thread twist-in. Various types of flanges are available for fitting fuel tank if necessary.
 - ◆ **Mounting:**
-38mm×2.6mm O-ring
-43mm×3.5mm O-ring
 - ◆ **Protection rank:** IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
 - **Rated power:** 125mW
 - **Max current:** 500mA
 - **Wire:** PVC material (PA corrugated pipe cover is optional)
 - **Connector:** Delphi, Tyco, or others are available according to customer's requirements.
 - **Output signal:**
Resistance control signal, 0~190Ω , 240~33Ω, or customized as required; You can also choose current control signal, 0~20mA, 4~20mA or Voltage control signal, 0.5~4.5VDC, 0~5VDC.
 - **Resolution range:** 10~40mm
 - **Operating temperature:** -40℃ ~ +85℃

KUS is the world's leading supplier of multipurpose level sensors. Every year more than a million KUS sensors are installed in boats, trucks and off-road equipments all over the world. Measurements are done by series of reed switches positioned inside the level tube. The float is the only moving part of the sensor, thereby minimizes potential mechanical failures. These features contribute to the the sensor's precise level measurements.



* Please contact us for more details.

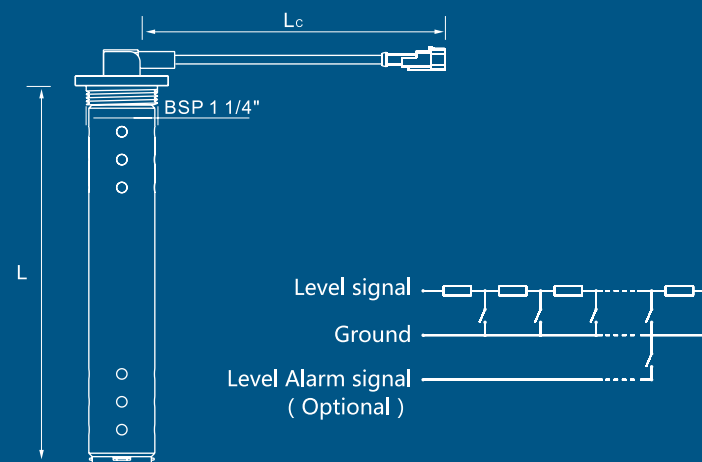
S5/S3 Series

www.kusauto.com

Art. No.	Product Name	Specification	Art. No.	Product Name	Specification
JS60055	S5-E150mm	Output Signal : 0~190Ω Mounting : SAE standard 5 holes Length of Wire : 460mm Gasket : NBR Alarm : No Material: SS316 Logo: KUS	JS61043	S3-E150mm	Output Signal : 0~190Ω Mounting : BSP 1 1/4" Thread Length of Wire : 460mm Gasket : NBR Alarm : No Material : SS316 Logo : KUS
JS60057	S5-E200mm		JS61045	S3-E200mm	
JS60059	S5-E250mm		JS61047	S3-E250mm	
JS60061	S5-E300mm		JS61049	S3-E300mm	
JS60063	S5-E400mm		JS61051	S3-E400mm	
JS60065	S5-E500mm		JS61053	S3-E500mm	
JS60067	S5-E600mm		JS61055	S3-E600mm	
JS60069	S5-E700mm		JS61057	S3-E700mm	
JS60071	S5-E800mm		JS61059	S3-E800mm	
JS60073	S5-E900mm		JS61061	S3-E900mm	
JS60075	S5-E1000mm		JS61063	S3-E1000mm	
JS60076	S5-E1100mm		JS61064	S3-E1100mm	
JS60077	S5-E1200mm		JS61065	S3-E1200mm	
JS60078	S5-E1300mm		JS61066	S3-E1300mm	
JS60079	S5-E1400mm		JS61067	S3-E1400mm	
JS60080	S5-E1500mm		JS61068	S3-E1500mm	
JS60081	S5-E1600mm		JS61069	S3-E1600mm	
JS60334	S5-U150mm	Output Signal : 240~33Ω Mounting : SAE standard 5 holes Length of Wire : 280mm Gasket : NBR Alarm : No Material : SS316 Logo : KUS	JS61368	S3-U150mm	Output Signal : 240~33Ω Mounting : BSP 1 1/4" Thread Length of Wire : 280mm Gasket : NBR Alarm : No Material : SS316 Logo : KUS
JS60336	S5-U200mm		JS61332	S3-U200mm	
JS60338	S5-U250mm		JS61334	S3-U250mm	
JS60340	S5-U300mm		JS61336	S3-U300mm	
JS60342	S5-U400mm		JS61338	S3-U400mm	
JS60344	S5-U500mm		JS61340	S3-U500mm	
JS60346	S5-U600mm		JS61342	S3-U600mm	
JS60348	S5-U700mm		JS61344	S3-U700mm	
JS60350	S5-U800mm		JS61346	S3-U800mm	
JS60352	S5-U900mm		JS61348	S3-U900mm	
JS60354	S5-U1000mm		JS61350	S3-U1000mm	
JS60355	S5-U1100mm		JS61351	S3-U1100mm	
JS60356	S5-U1200mm		JS61352	S3-U1200mm	
JS60357	S5-U1300mm		JS61353	S3-U1300mm	
JS60358	S5-U1400mm		JS61354	S3-U1400mm	
JS60359	S5-U1500mm		JS61355	S3-U1500mm	
JS60360	S5-U1600mm		JS61356	S3-U1600mm	
			* Optional Flange : Please refer to page 56 “Flange for mounting”		

Remark: The length can be customized according to the tank height.

S3HT Series



- ◆ Material: The main body is made of stainless SS316
 - ◆ Length range:
4" , 6" , 8" , 12" , 16" It can also be customized according to your requirements.
 - ◆ Assembly:
Various types of flanges is available for fitting fuel tank if necessary.
 - ◆ Mounting:
 - 38mm×2.6mm O-ring,
 - 43mm×3.5mm O-ring.
 - ◆ The outer tube can be detached for easy cleaning.
 - ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
 - Rated power: 125mW
 - Max current: 500mA
 - Wire: PVC material (PA corrugated pipe cover is optional)
 - Connector: Delphi, Tyco, or others are available according to customer's requirements.
 - Output signal:
Resistance control signal, 0~190Ω , 240~33Ω, or customized as required;
You can also choose current control signal, 0~20mA, 4~20mA or Voltage control signal, 0.5~4.5VDC, 0~5VDC.
 - Resolution range: 10~40mm
 - Operating temperature: -40°C ~+85°C

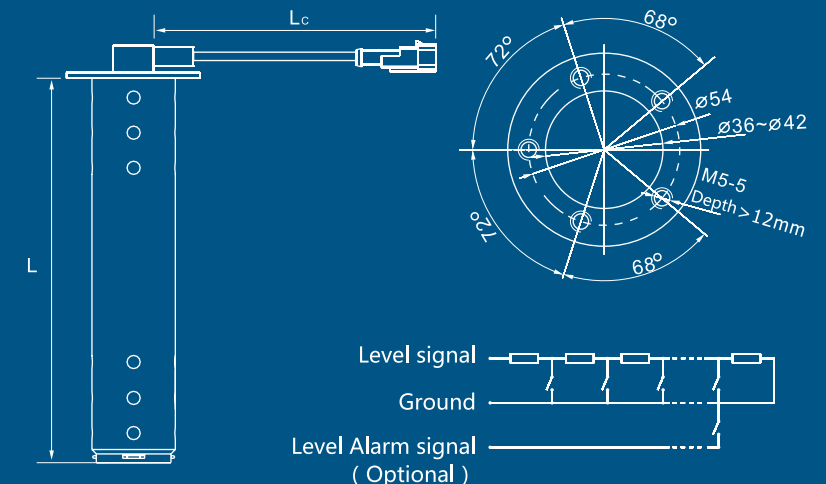
Art. No.	Length(mm)	Specification
JS63186	S3HT-U150	Output : 240~33Ω Mounting : BSP 1 1/4" Thread Gasket : NBR Length of wire : 280 mm Material : SS316 Logo : KUS Length of Sensor: Customized
JS63187	S3HT-U175	
JS63062	S3HT-U200	
JS63188	S3HT-U225	
JS63189	S3HT-U250	
JS63203	S3HT-U275	
JS63063	S3HT-U300	
JS63014	S3HT-U350	
JS63064	S3HT-U400	
JS63190	S3HT-U450	
JS63191	S3HT-U500	

Art. No.	Length(mm)	Specification
JS63171	S3HT-E150	Output : 0~190Ω Mounting : BSP 1 1/4" Thread Gasket : NBR Length of wire : 280 mm Material: SS316 Logo : KUS Length of Sensor: Customized
JS63172	S3HT-E175	
JS63173	S3HT-E200	
JS63174	S3HT-E225	
JS63148	S3HT-E250	
JS63205	S3HT-E275	
JS63149	S3HT-E300	
JS63089	S3HT-E350	
JS63146	S3HT-E400	
JS63175	S3HT-E450	
JS63152	S3HT-E500	

Note: The above items are without flange, but we can offer optional flange, refer to JSM1714 on page 56.

* Please contact us for more details.

S5H Series



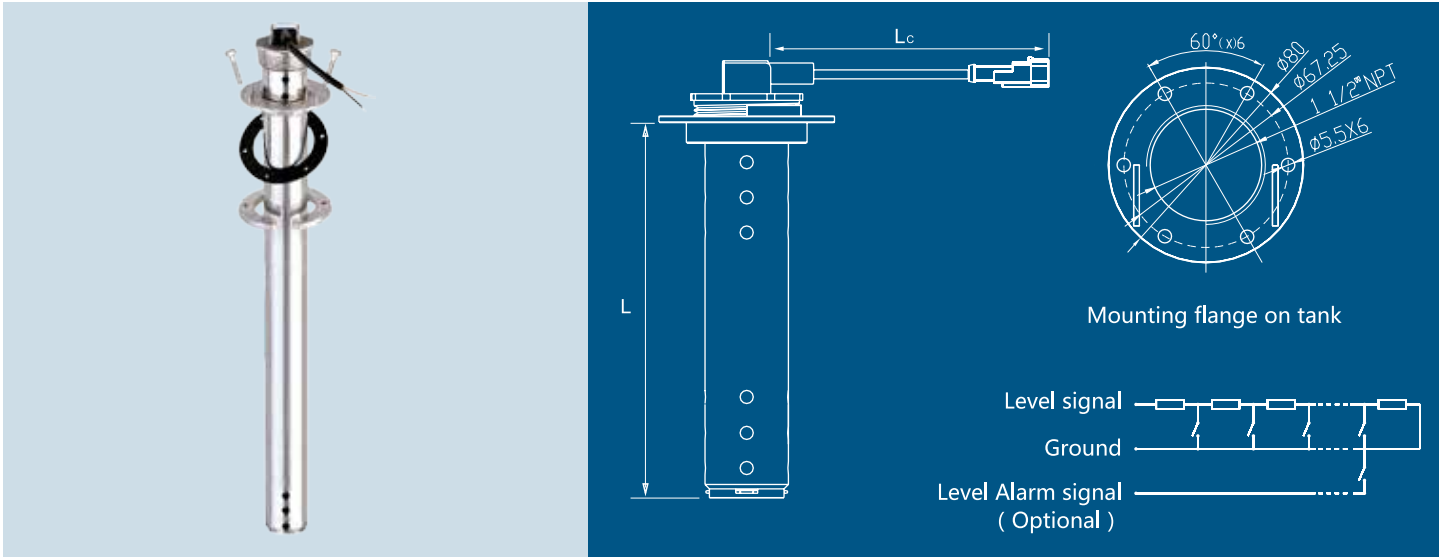
- ◆ Uses: Mainly used in black water or grey water tanks. Can also be used in fresh water tanks.
- ◆ Material: The main body is made of SS316 stainless steel.
- ◆ Length range: 4" , 6" , 8" , 12" , 16" , 20" , 30" It can also be customized according to your requirements.
- ◆ Mounting: SAE standard 5 holes, other mounting methods available.
- ◆ Using NPT thread to fix and seal the sensor and flange, with addition of Teflon tape belts to seal if necessary.
- ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 125mW
- Max current: 500mA
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Delphi, Tyco, or others are available according to customer's requirements.
- Output signal:
Resistance control signal, 0~190Ω , 240~33Ω, or customized as required; You can also choose current control signal, 0~20mA, 4~20mA or Voltage control signal, 0.5~4.5VDC, 0~5VDC.
- Resolution range: 10~40mm
- Operational temperature: -40℃ ~+85℃

Art. No.	Length(mm)	Specification
JKS00103	S5H-U150	Output : 240~33Ω Mounting : SAE standard 5 holes Gasket : NBR Length of wire : 460mm Material : SS316 Logo : KUS Length of Sensor: Customized
JKS00104	S5H-U175	
JKS00105	S5H-U200	
JKS00106	S5H-U225	
JKS00107	S5H-U250	
JKS00108	S5H-U275	
JKS00109	S5H-U300	
JKS00110	S5H-U350	
JKS00111	S5H-U400	
JKS00112	S5H-U450	
JKS00113	S5H-U500	

Art. No.	Length(mm)	Specification
JKS00092	S5H-E150	Output : 0~190Ω Mounting : SAE standard 5 holes Gasket : NBR Length of wire : 460mm Material: SS316 Logo : KUS Length of Sensor: Customized
JKS00093	S5H-E175	
JKS00094	S5H-E200	
JKS00095	S5H-E225	
JKS00096	S5H-E250	
JKS00097	S5H-E275	
JKS00098	S5H-E300	
JKS00099	S5H-E350	
JKS00100	S5H-E400	
JKS00101	S5H-E450	
JKS00102	S5H-E500	

* Please contact us for more details.

SHS Series



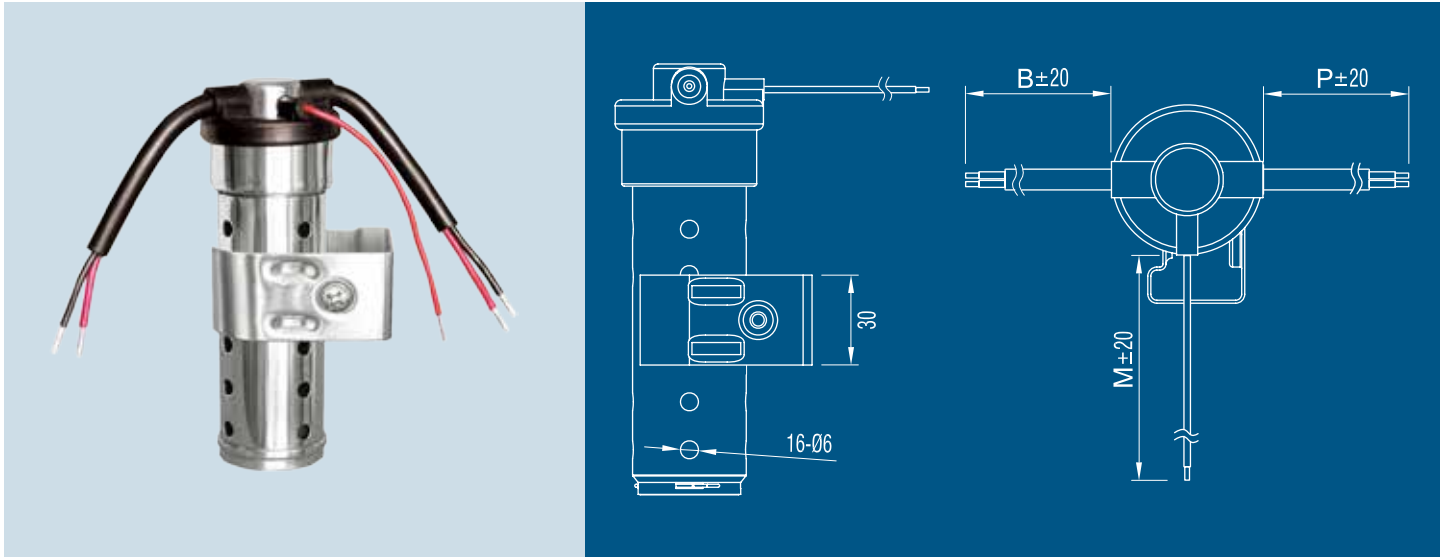
- ◆ Uses: Mainly used in black water or grey water tanks. Can also be used in fresh water tanks.
- ◆ Material: The main body is made of SS316 stainless steel.
- ◆ Length range: 4" , 6" , 8" , 12" , 16" , 20" , 30" It can also be customized according to your requirements.
- ◆ Mounting: NPT 1 1/2" thread twist-in, with standard 6 hole thread flange plate, standard 6 hole under ring and 6 piece of M5×30 screws.
- ◆ Using NPT thread to fix and seal the sensor and flange, with addition of Teflon tape belts to seal if necessary.
- ◆ Protection rank: IP67
- Utilizing magnetic field to control the reed on-off switch, the product features a long service life and protection against vibration.
- Rated power: 125mW
- Max current: 500mA
- Wire: PVC material (PA corrugated pipe cover is optional)
- Connector: Delphi, Tyco, or others are available according to customer's requirements.
- Output signal: Resistance control signal, 0~190Ω , 240~33Ω, or customized as required; You can also choose current control signal, 0~20mA, 4~20mA or Voltage control signal, 0.5~4.5VDC, 0~5VDC.
- Resolution range: 10~40mm
- Operational temperature: -40°C ~ +85°C

Art. No.	Length(mm)	Specification
JKS00126	SHS-U150	Output : 240~33Ω Mounting : NPT 1 1/2" Gasket : NBR Length of wire : 460mm Material : SS316 Logo : KUS Length of Sensor: Customized With flange
JKS00127	SHS-U175	
JKS00128	SHS-U200	
JKS00129	SHS-U225	
JKS00130	SHS-U250	
JKS00131	SHS-U275	
JKS00132	SHS-U300	
JKS00133	SHS-U350	
JKS00134	SHS-U400	
JKS00135	SHS-U450	
JKS00136	SHS-U500	

Art. No.	Length(mm)	Specification
JKS00115	SHS-E150	Output : 0~190Ω Mounting : NPT 1 1/2" Gasket : NBR Length of wire : 460mm Material : SS316 Logo : KUS Length of Sensor: Customized With flange
JKS00116	SHS-E175	
JKS00117	SHS-E200	
JKS00118	SHS-E225	
JKS00119	SHS-E250	
JKS00120	SHS-E275	
JKS00121	SHS-E300	
JKS00122	SHS-E350	
JKS00123	SHS-E400	
JKS00124	SHS-E450	
JKS00125	SHS-E500	

* Please contact us for more details.

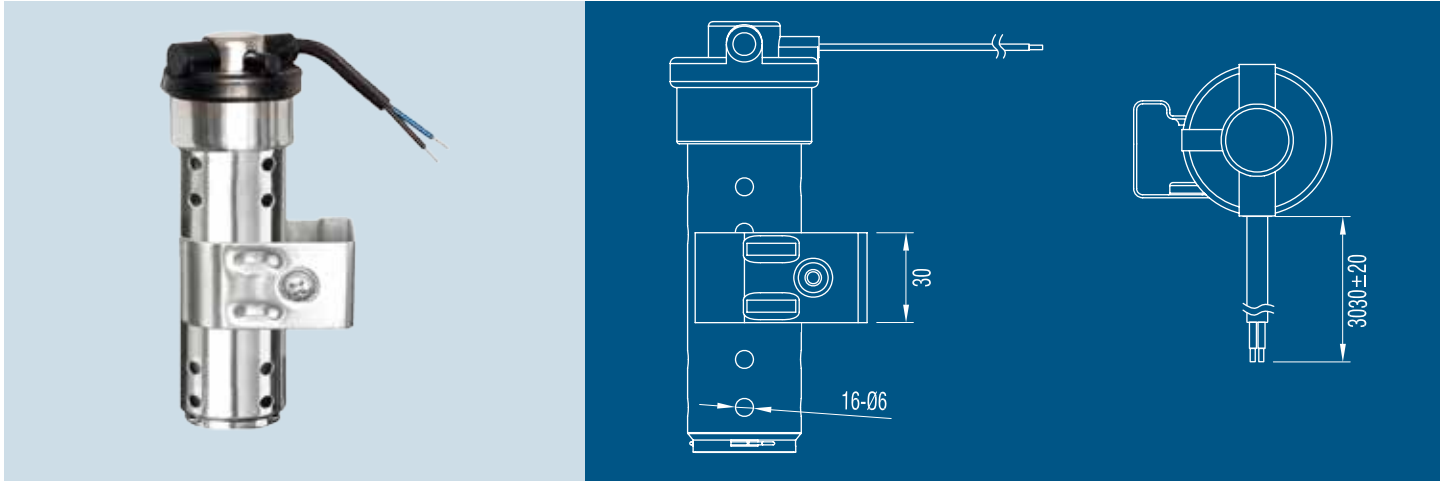
PBK Series



- ◆ Standard length is 4", length can also be customized. Rating working voltage can be 12V or 24V. single core wire can be used, and pump switch can be operated manually.
- This device is for detecting water level at the bottom of your boat, can also be used as a pump switch by manual operation. It can be installed at the bottom wherever is convenient. Adjustable bracket is to fix the sensor in place and slight adjustment of height. The housing, which can be conveniently disassembled and cleaned, can prevent foreign particles from interfering with the float's movement.

Art. No.	Lengh	Voltage	Mounting	Gasket	Connector	Length Of Wire(Lc)			Material
JS65120	100 mm	24V	BSP 1 1/4" Thread	NBR	NO	B:3000 mm	P:800 mm	M:3000 mm	SS 316
JS50639	100 mm	12V	BSP 1 1/4" Thread	NBR	YES	B:600 mm	P:330 mm	M:620 mm	SS 316
Customized	Customized	Customized	Customized	NBR/FPM	YES/NO	Customized			Customized

OVG Series



- ◆ Standard length is 4", length can also be customized. Rating working voltage can be 12V or 24V. single core wire can be used, and pump switch can be operated manually.
- The function of OVG is same as the PBK, it can also be used as a pump switch but by automatically.

Art. No.	Lengh	Voltage	Mounting	Gasket	Connector	Length Of Wire(Lc)			Material
JS65121	100 mm	24V/12V	BSP 1 1/4" Thread	NBR	NO	3030 mm			SS 316
Customized	Customized	Customized	Customized	NBR/FPM	YES/NO	Customized			Customized

Resistance resistor



Art. No.: JKE00473

If E-F end short circuit :
Input : 240-33 ohm-----Output : 0-190 ohm

If E-F end off :
Input : 0-190 ohm-----Output : 240-33 ohm

Special requirements can be customized :
This product mainly solves problem that customized sensor can't match with gauge resistor signal, it can perfectly connect the two equipments whose signals didn't match, so the user loss can be reduced.

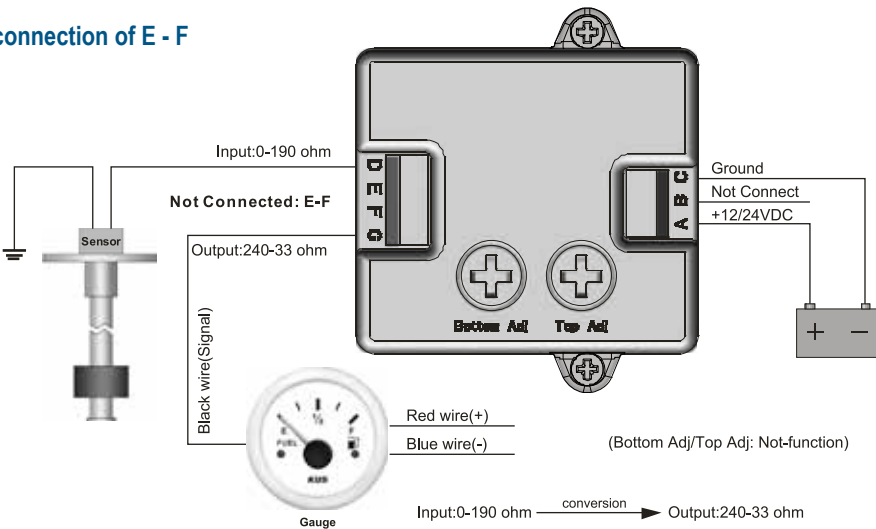
SAB high/Low level alarm



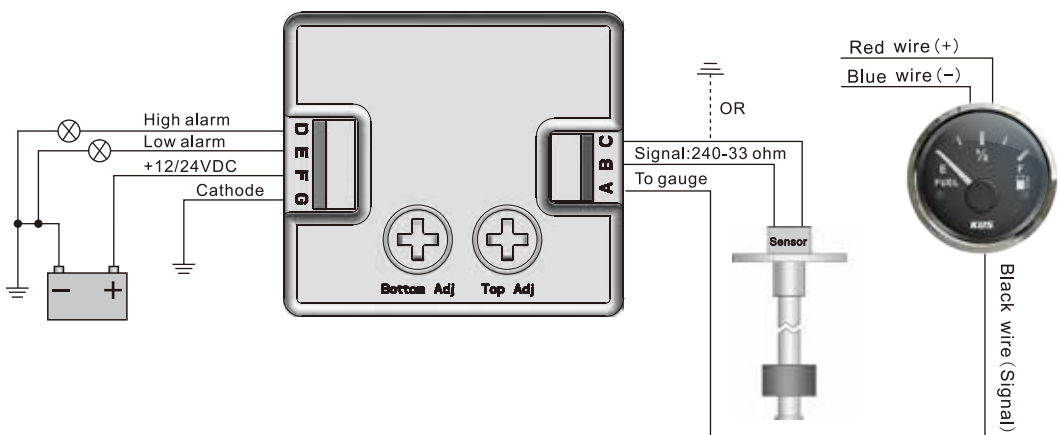
Art. No.: JKE00023

Product feature:
This product allows the user to add a high and low level alarm signal to the control and monitoring system. The high/low level alarm position could be adjusted by turning the two adjusting knobs. This product must be used with sending units with alarm function.

Please note that the connection of E - F



Connection diagram:



Pictures								
Model	Flange	Flange	Flange		Flange	HFL	FL-2	Buzzer
Art. No.	JSM0893	JSA0054	JSM0319	JSM0884	JS21880	JSM1714	JSP00172	162011
Description	SAE 5 holes	Alu. flange for 1-1/4" BSP tank sensors	Stainless steel weld flange for 1-1/4" BSP tank sensors S3HT/ S3	Iron SAE 5 holes weld flange for S3HT/ S3	SAE 5 holes of C-ring flange for S5 sensors.	Tooside/underside kit to suit S3HT 1-1/4" BSP waste sensors	Tooside flange to adapt S3 1-1/4" BSP to SAE 5 holes	Buzzers with 6.3mm faston

* KUS also offers various flanges for connection between the tank and sensor, such as standard SAE flanges and BSP thread flanges. One can choose between flange/accessories made of stainless steel, aluminum or engineered plastic.

* Please contact us for more details.

Rudder angle sensor

Rudder sensor is usually installed on the sternward rudder horn to collect signals by wire resistor. These sensors are made of materials of the highest quality.

Art. No.	Output	Connecting wires	Connecting Gauges
KE41000	Single output : 0-190Ω	2 wires	1 Gauge
JZM6470	Double output : 0-190Ω	3 wires	2 Gauges



Art. No. : JSM4480

Rudder sensor is attached to the cylinder of the steering rudder. Signal output is via integrated reed switches. Sensor is durable and can be easily assembled.



Art. No. : KE41002

The rudder sensor is made of highest quality with 10 meter wires. Turn the rudder controller (Steering wheel) to the middle position, and quickly press down the key, it will record the corresponding position of the rudder sensor when the rudder is in the middle position.

Tacho sensor



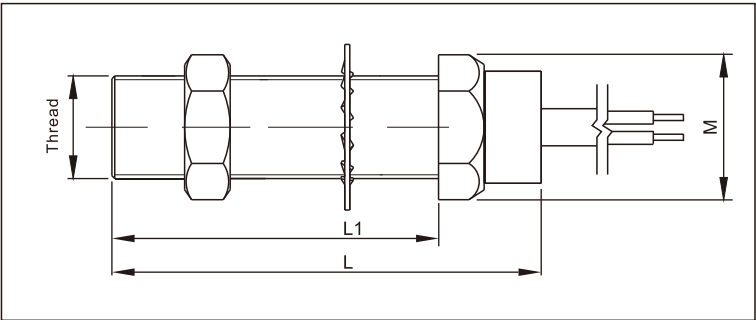
- Used for measuring gear rotation speed. Its main advantages include stable signal output, wide range of operational temperature, small size, and simple assembly process.
- It covers a wide range of measurements, including zero rotation speed.
- The shell appearance, material and thread fitting can be customized as requires.
- Protection rank: IP65

Holzer Tacho Sensor

- Operating voltage: 8~32V with polarity protection
- Operating current: < 50mA
- Operating temperature: -40~85°C
- Output signal: Square wave
- Signal duty factor: 47±5%
- Inductance distance: ≤2mm
- Connection method: three or four wires connection

Magnetolectric Tacho Sensor

- Operating temperature: -40~85°C
- Output signal: sine wave
- Inductance distance: ≤1mm
- Tooth module: 2~6
- Connection method: two wires connection



Art. No.	L(mm)	L1(mm)	Thread	M	Output Signal	Frequency Range(Hz)	Connection	Appearance
KE10010	100	80	M16×1.5	SW19	Sine wave	100-15000	Two wires	Nickel plated
KE10011	65	45	M16×1.5	SW19				
KE10012	100	80	UNF5/8	SW19				
KE10000	80	60	M18×1.5	SW22	Square wave	0-20000	Three wires	
KE10001	80	70	M18×1.5	No hexagon				
KE10004	80	70	M16×1.5	No hexagon				
KE10005	60	40	M18×1.5	SW22				
KE10006	80	70	UNF5/8	No hexagon				
KE10007	80	60	UNF5/8	SW19				

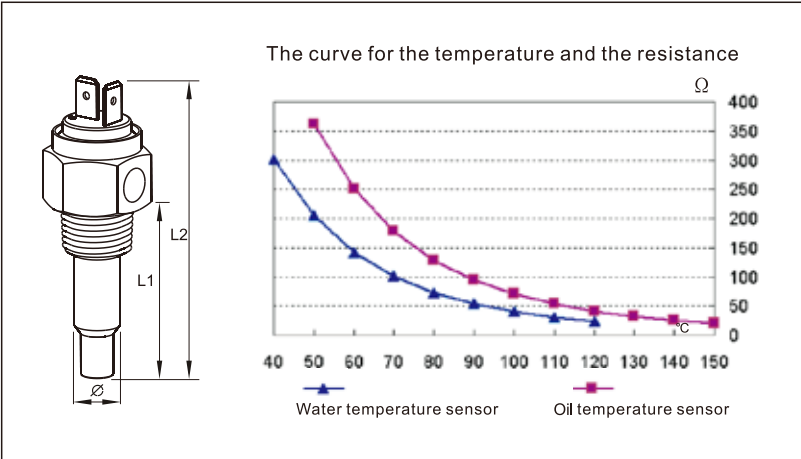
* Please contact us for more details.

Temp. sensor



- The main body is made of brass.
- Please refer to appendix 1 for product types (temperature sensor series)
- Sensors have double metal plate connectors.
Eg: Type II and Type III (Type III with alarm feature)
- Protection rank: IP67

- Rated voltage: 6V~24V
- Temperature response time: Minimum 3 minutes after power supply electrified.
- Rated power for alarm switch: 1.2W~3W
- The temperature alarm tolerance: $\pm 3^{\circ}\text{C}$
- Type of alarm touch:
The switch turns off when the temperature rises.



I

PIN : 6.3×0.8mm
PIN=Temperature Signal
Case Earth

II

PIN : 6.3×0.8mm
S=Temperature Signal
GND= Ground

III

PIN : 6.3×0.8mm
S=Temperature Signal
A=Alarm Signal
Case Earth

IV

Threaded Rod : M5x0.8mm
Threaded Rod=Temperature Signal
Case Earth

Oil temperature sensors

Art. No.	Product Name	Temperature Max(°C)	Alarm Temp.(°C)	Thread Spec.	L1(mm)	L2(mm)	Type
KE01001	SON-1	150	—	M14×1.0	28.5	51	I
KE01000	SON-1	150	—	M14×1.25	28.5	51	
KE01002	SON-1	150	—	M14×1.5	28.5	51	
KE01003	SON-1	150	—	M16×1.5	28.5	51	
KE01004	SON-1	150	—	M18×1.5	28.5	51	
KE01005	SON-1	150	—	1/4"-18NPT	28.5	51	
KE01006	SON-1	150	—	1/8"-27NPT	28.5	51	
KE01007	SON-1	150	—	3/8"-18NPT	28.5	51	
KE01008	SON-1	150	—	1/2"-14NPT	28.5	51	
KE01009	SON-1	150	—	5/8"-18UNF	28.5	51	
KE01013	SON-2	150	—	M16×1.5	28.5	58.7	II
KE01017	SON-2	150	—	3/8"-18NPT	28.5	58.7	
KE01014	SON-2	150	—	M18×1.5	28.5	58.7	
KE01018	SON-2	150	—	5/8"-18UNF	28.5	58.7	
KE01012	SON-2	150	—	M14×1.5	28.5	58.7	
KE01016	SON-2	150	—	1/2"-14NPT	28.5	58.7	
KE01019	SON-2	150	—	R3/8"-19	28.5	58.7	
KE01020	SON-2	150	—	M22×1.5	28.5	58.7	
KE01102	SOA-3	150	120	M14×1.0	41	71.5	III
KE01103	SOA-3	150	120	M14×1.25	41	71.5	
KE01104	SOA-3	150	120	M14×1.5	41	71.5	
KE01105	SOA-3	150	120	M16×1.5	41	71.5	
KE01106	SOA-3	150	120	M18×1.5	41	71.5	
KE01107	SOA-3	150	120	M16×1.5	41	71.5	
KE01108	SOA-3	150	120	1/2"-14NPT	41	71.5	
KE01101	SOA-3	150	120	3/8"-18NPT	41	71.5	
KE01100	SOA-3	150	120	5/8"-18UNF	41	71.5	
KE01109	SOA-3	150	120	M20×1.5	41	71.5	
KE01110	SOA-3	150	115	1/2"-14NPT	41	71.5	
KE01023	SOA-3	150	105	M12×1.25	41	71.5	
KE01111	SOA-3	150	80	M14×1.5	41	71.5	
KE01112	SOA-3	150	120	1/4"-18NPT	41	71.5	
KE01113	SOA-3	150	120	M22×1.5	30	68.5	
KE01114	SOA-3	150	135	M16×1.5	41	71.5	
KE01115	SOA-3	150	100	M14×1.0	41	71.5	

* Please contact us for more details.

Water temperature sensors

Art. No.	Product Name	Temperature Max(°C)	Alarm Temp.(°C)	Thread Spec.	Ømm	L1(mm)	L2(mm)	Type
KE00000	SWN-1	120	—	M14×1.0	7.5	28.5	51	I
KE00001	SWN-1	120	—	M14×1.25	7.5	28.5	51	
KE00002	SWN-1	120	—	M14×1.5	7.5	28.5	51	
KE00003	SWN-1	120	—	M16×1.5	7.5	28.5	51	
KE00004	SWN-1	120	—	M18×1.5	7.5	28.5	51	
KE00005	SWN-1	120	—	1/4"-18NPT	7.5	28.5	51	
KE00006	SWN-1	120	—	1/8"-27NPT	7.5	28.5	51	
KE00007	SWN-1	120	—	3/8"-18NPT	7.5	28.5	51	
KE00009	SWN-1	120	—	5/8"-18UNF	7.5	28.5	51	
KE00025	SWN-1	120	—	1/2"-14BSP	7.5	28.5	51	
KE00035	SWN-1	120	—	M10×1.0	7.5	28.5	51	
KE00038	SWN-1	120	—	M16×1.5	7.5	22	44.5	
KE00017	SWN-2	120	—	M16×1.5	13	28.5	58.7	II
KE00021	SWN-2	120	—	3/8"-18NPT	13	28.5	58.7	
KE00018	SWN-2	120	—	M18×1.5	13	28.5	58.7	
KE00022	SWN-2	120	—	5/8"-18UNF	13	28.5	58.7	
KE00016	SWN-2	120	—	M14×1.5	13	28.5	58.7	
KE00020	SWN-2	120	—	1/2"-14NPT	13	28.5	58.7	
KE00036	SWN-2	120	—	1/4"-18NPTF	13	28.5	58.7	
KE00023	SWN-2	120	—	M20×1.5	13	28.5	58.7	
KE00100	SWA-3	120	95	M14×1.0	10.7	41	71.5	III
KE00101	SWA-3	120	95	M14×1.25	10.7	41	71.5	
KE00102	SWA-3	120	95	M14×1.5	10.7	41	71.5	
KE00119	SWA-3	120	107	M16×1.5	10.7	41	71.5	
KE00122	SWA-3	120	98	M18×1.5	10.7	41	71.5	
KE00105	SWA-3	120	98	3/8"-18NPT	10.7	41	71.5	
KE00133	SWA-3	120	103	5/8"-18UNF	10.7	41	71.5	
KE00148	SWA-3	120	108	R3/8"-19	10.7	30	68.5	
KE00170	SWA-3	120	110	1/2"-14NPT	10.7	30	68.5	
KE00112	SWA-3	120	95	M16×1.5	10.7	41	71.5	
KE00106	SWA-3	120	95	M18×1.5	10.7	41	71.5	

Art. No.	Product Name	Temperature Max(°C)	Alarm Temp.(°C)	Thread Spec.	Ømm	L1(mm)	L2(mm)	Type
KE00108	SWA-3	120	95	1/2"-14NPT	10.7	41	71.5	III
KE00103	SWA-3	120	95	3/8"-18NPT	10.7	41	71.5	
KE00109	SWA-3	120	95	5/8"-18UNF	10.7	41	71.5	
KE00113	SWA-3	120	98	M14×1.0	10.7	41	71.5	
KE00114	SWA-3	120	98	M14×1.25	10.7	41	71.5	
KE00120	SWA-3	120	98	M14×1.5	10.7	41	71.5	
KE00121	SWA-3	120	98	M16×1.5	10.7	41	71.5	
KE00124	SWA-3	120	98	1/2"-14NPT	10.7	41	71.5	
KE00125	SWA-3	120	98	5/8"18UNF	10.7	41	71.5	
KE00149	SWA-3	120	102	5/8"18UNF	10.7	30	68.5	
KE00115	SWA-3	120	98	1/2"-14NPT	10.7	41	71.5	
KE00116	SWA-3	120	95	M12×1.25	10.7	41	71.5	
KE00140	SWA-3	120	110	M16×1.5	10.7	30	68.5	
KE00141	SWA-3	120	105	3/8"-18NPT	10.7	41	71.5	
KE00143	SWA-3	120	100	M14×1.5	10.7	41	71.5	
KE00152	SWA-3	120	99	1/2"-14NPT	10.7	41	71.5	
KE00153	SWA-3	120	99	3/8"-18NPT	10.7	41	71.5	
KE00156	SWA-3	120	100	1/2"-14NPT	10.7	41	71.5	
KE00160	SWA-3	120	98	3/8"-18NPT	10.7	30	68.5	
KE00161	SWA-3	120	98	M16×1.5	10.7	30	68.5	
KE00163	SWA-3	120	110	1/2"-14NPT	10.7	41	71.5	
KE00164	SWA-3	120	110	3/8"-18NPT	10.7	41	71.5	
KE00165	SWA-3	120	98	1/2"-14NPT	10.7	30	68.5	
KE00166	SWA-3	120	98	1/4"-18NPT	10.7	41	71.5	
KE00169	SWA-3	120	98	3/8"-18R	10.7	41	71.5	
KE00010	SWN-1	120	—	1/2"-14NPT	8	30	54	IV
KE00011	SWN-1	120	—	1/8"-27NPT	8	27	51.5	
KE00012	SWN-1	120	—	1/4"-18NPT	8	27	51.5	
KE00027	SWN-1	120	—	1/2"-14BSP	8	30	54	
KE00013	SWN-1	120	—	3/8"-18NPT	8	22	46.5	
KE00030	SWN-1	120	—	M10×1.0	8	27	51.5	
KE00039	SWN-1	120	—	M16×1.5	8	22	46.5	

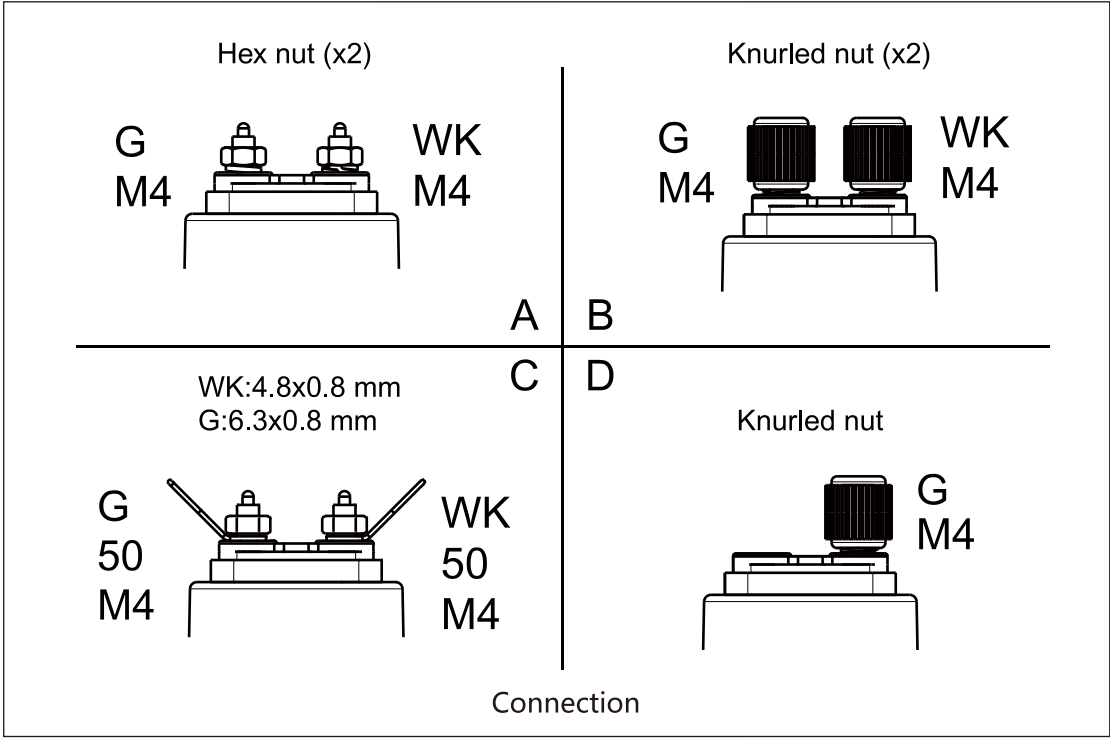
* Please contact us for more details.

Pressure sensor (mechanical)



- It combines the advantages of excellent anti-vibration performance, long service life, simple assembly process, stable quality, wide range of operating temperature, etc.
- It is largely applied to many fields, such as the engine pipe of vehicles and ships, water processing projects, inspection and control of industrial processes, hydraulic and pneumatic control projects, etc.
- Protection rank: IP66

- Operating voltage: 6~24V
- Conducting power: < 5W
- Operating temperature: -25 ~120°C(120°C MAX 1H)
- Measuring range: 0~5Bar or 0~10Bar
- Alarm: 0.8Bar or 1.4Bar
- Output signal: Standard resistance value: 10~184Ω
- Thread fitting: NPT1/4、NPT1/8、M10、M10X1 or customized as requires.



Art. No.	Thread	Measuring Range(Bar)	Output(Ω)	Alarm(Bar)	Connection	Appearance		
KE21102	NPT1/8	0-5	10-184	0.8±0.2	A	Color zinc plated		
KE21100	NPT1/8	0-10	10-184	0.8±0.2				
KE21101	NPT1/4	0-10	10-184	0.8±0.2				
KE21047	NPT1/4	0-10	10-184	1.4±0.3				
KE21015	UNF 3/8	0-10	10-184	No				
KE21109	M10*1	0-10	10-184	1.4±0.2				
					B		Color zinc plated	
KE21104	NPT1/8	0-5	10-184	0.8±0.2				
KE21010	NPT1/8	0-5	10-184	NO				
KE21112	NPT1/4	0-5	10-184	0.8±0.2				
KE21121	M10*1	0-5	10-184	1.4±0.2				
KE21134	R1/8	0-5	10-184	0.8±0.2				
KE21103	NPT1/8	0-10	10-184	0.8±0.2				
KE21107	M10*1	0-10	10-184	1.4±0.2				
KE21111	NPT1/4	0-10	10-184	0.8±0.2				
KE21006	PT 1/8	0-10	10-184	No				
KE21123	M14*1.5	0-10	10-184	0.8±0.2				
KE21126	R1/8	0-10	10-184	0.4±0.2				
KE21017	NPT1/8	0-10	240-33	NO				
					C			Color zinc plated
KE21124	NPT1/8	0-10	10-184	0.5±0.2				
KE21142	NPT1/8	0-10	10-192	0.8±0.2				
KE21120	NPT1/8	0-10	10-184	0.8±0.2				
					D	Color zinc plated		
KE21005	NPT1/8	0-5	10-184	No				
KE21152	BSP-1/8	0-10	10-184	No				



* Please contact us for more details.

The next generation of SCR technology for NO_x reduction



The International Maritime Organization (IMO) has regulated NO_x emissions from marine vessels in order to reduce air pollution caused by NO_x. The IMO's Tier III standards require that marine vessels setting sail in 2016 or later reduce NO_x emissions by 80 % relative to 2010 levels.

In order to comply with the strict standard, SCR (selective catalytic reduction, SCR) is to reduce marine diesel exhaust nitrogen oxide content of mainstream technology. SCR meets IMO Tier III standards and beyond by consistently removing 95% or more of NO_x in the exhaust gas of a marine engine.

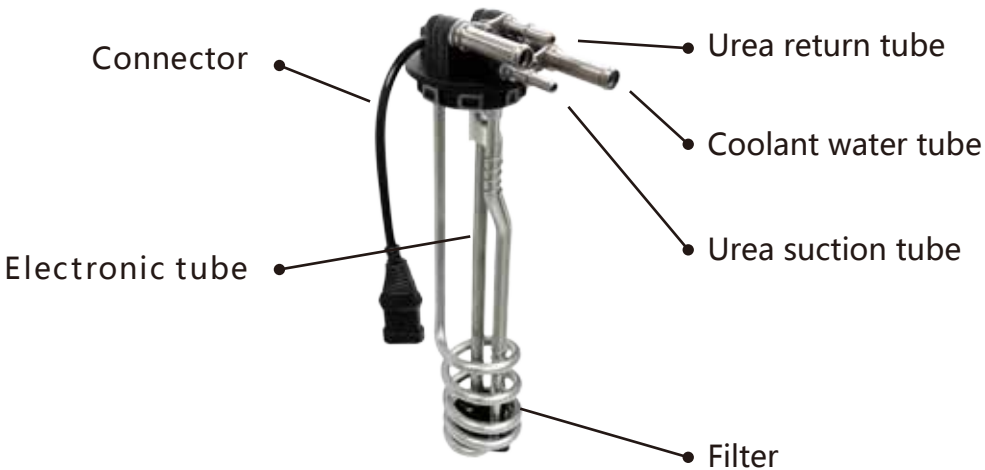
SCR system operation needs to consume urea solution as a reducing agent, in order to ensure the normal operation of marine SCR system, usually set up a separate urea solution tank for storing urea solution, and also need one urea sensor to be combined with this urea tank for level detecting, temperature measurement, suction and return of urea solution, impurities filtration and others functions.

KUS is the world's leading manufacturer of urea tank and urea sensors. Our urea sensors and urea tank are widely used in SCR equipped vehicles all over the world. We can supply OEM and ODM service for SCR system of marine diesel engines.



Benefits of our sensors

- Signal output with high precision
- Resistant to environmental variations
- Integrated key features
- Extended operation lifetime
- Selectable length subject to users' application
- Options of different electronics connectors
- Custom design formation optimized for different tank design



■ Urea sensors with Multi-functions



■ Urea sensors with single tube



NEW



NEW

Control panel (High version)



- Product feature
 - High integration
 - Excellent electromagnetic compatibility
 - Input overvoltage protection
 - Power overcurrent protection
 - 12-way power output with short circuit diagnosis
 - 8-way sensor input
 - 6-way switch input
 - LCD with high resolution
- Product specification
 - Display screen size : 207 * 134.4 * 50.1mm
 - Control box size : 37*117*45mm
 - Working voltage : 9-16V
 - Working temperature : -40~85°C
 - Storage temperature : -40~90°C
 - Relative humidity : 5%~90%
 - Air pressure : 86kPa~106kPa

Control panel (Mid version)

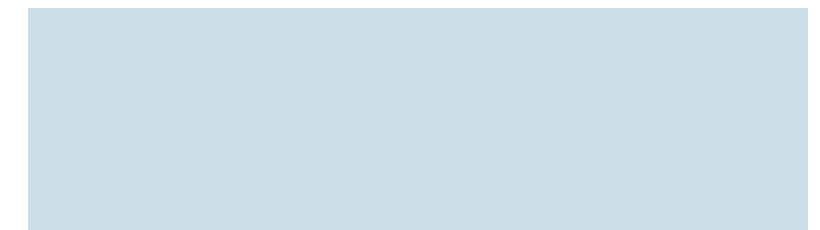


- Product feature
 - High integration
 - Excellent electromagnetic compatibility
 - Input overvoltage protection
 - Power overcurrent protection
 - 8-way power output with short circuit diagnosis
 - 4-way sensor input
 - 4-way switch input
 - LCD with high resolution
- Product specification
 - Display screen size : 205*91*50mm
 - Control box size : 237*117*45mm
 - Working voltage : 9-16V
 - Working temperature : -40~85°C
 - Storage temperature : -40~90°C
 - Relative humidity : 5%~90%
 - Air pressure : 86kPa~106kPa

Control panel (Standard version)



- Product feature
 - 5min protection for reverse connection
 - 60min protection for overvoltage
 - 8-Way control switch power output, reach 20A/each circuit
 - Integrated with 8 current protectors
 - Integrated with Waste Gauge, Grey Water Gauge, Voltmeter(Customized requirement be allowed)
 - Simple installation
 - High cost performance
- Product specification
 - Display screen size : 290*180mm
 - Working voltage : 9-16V DC
 - Working current : ≤200mA
 - Resistant to high voltage : 500V, 1S
 - Operation method : Rocker switch
 - Working temperature : -30°C ~ +65°C
 - Storage temperature : -30°C ~ +80°C





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