



KODEN

*For Safety &
Accurate Docking*

SRD-303i (Large Display Board Type)

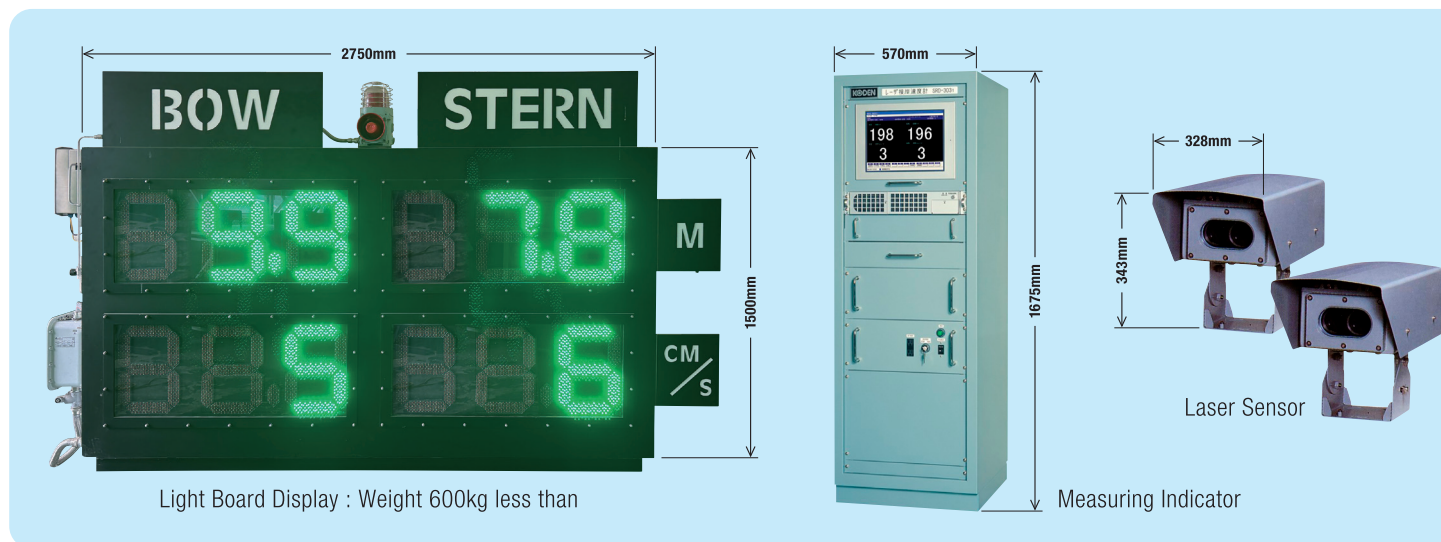
SRD-701i (Portable Type)

Laser Docking Ranger

Safety is the best for berthing ship

- Reliable support for safe berthing of ships of all sizes
- High accuracy and stability for safe berthing operations
- User-friendly interface, designed for easy operation
- Smart Port Access – Real – Time Berthing Information Online
- Designed for Strength and Reliability

SRD-303i



SRD-303i / SRD-701i -Laser Berthing Velocity Log

*Experience precision, reliability,
and peace of mind every berthing operation.*

Ensure safer berthing for vessels of all sizes with the SRD-303i /SRD-701i,
a state-of-the-art velocity log that utilizes advanced laser distance measurement technology.

- **Real-Time Safety Support:** Simultaneously measures bow and stern distances, calculating approach speed and angle in real time to support safe berthing operations.
- **Flexible Installation:** Quay-mounted laser sensors can be positioned according to vessel.
- **Portable Convenience:** SRD-701i portable model is compact, lightweight, and battery-powered. Easy to carry and quick to install or remove, it is the perfect solution for temporary setups or as a reliable backup to the fixed SRD-303i.

Ensures reliable measurement on various types of ships

The laser-based berthing speed sensor measures the parallel sides of vessels at sea, enabling stable and accurate readings regardless of ship type. The laser rangefinder is installed on the pier, allowing optimal positioning according to the size of the berthing vessel and the tide level.

The laser light complies with safety standards

The measurement laser complies with IEC60825-1:2007-03 Class 1, requiring no special safety precautions.

Meets IEC 825-1984 and
Revised EN60825 regulations.
This unit is designed for class 1 laser.



Simple checking and handling of berthing data

Measured data is displayed on the screen and saved to the device's built-in storage.
Since the data is in CSV format, it can be easily viewed and edited.

Equipped with various alarm functions

Speed, off-birth, and Tilt angle alarms are displayed, ensuring safe and reliable operations during berthing.

Available in fixed and portable models

Offering two types of Laser Docking Ranger — the permanently installed SRD-303i and the portable SRD-701i — provides greater flexibility in usage.

The portable model requires no electrical wiring for power or signal connections.(SRD-701i)*

Equipped with a battery-powered wireless sensor, no large-scale installation work is required.
Ready for immediate setup and use.

*Up to 5 users

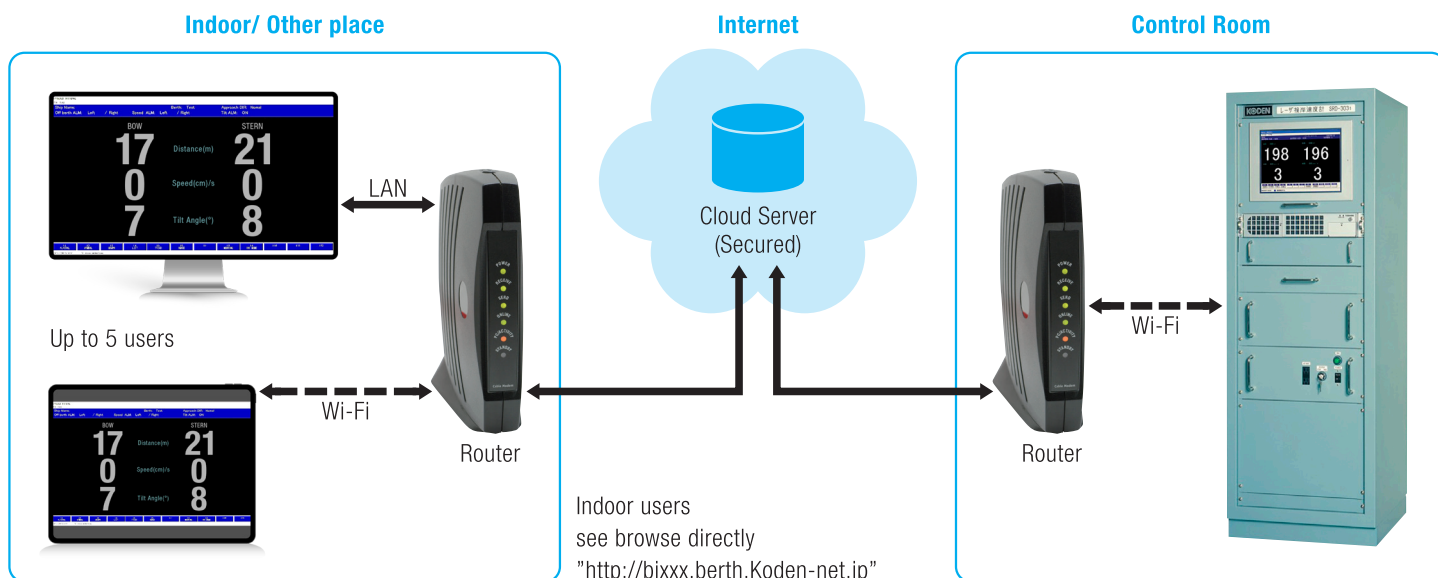
Internet-Enabled Berthing Information System(SRD-303i)

With the SRD-303i, berthing data such as distance and speed can be monitored anytime, anywhere through Internet access. This enables port operators, pilots, and vessel managers to check real-time approach information remotely, ensuring safer and more efficient berthing operations.

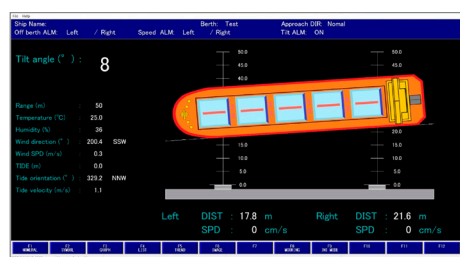
SRD-701i



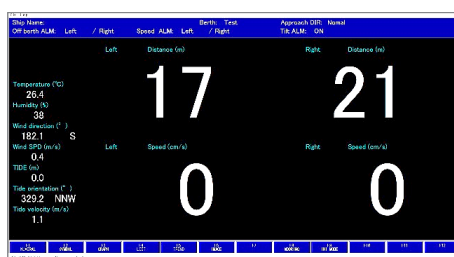
Internet Cloud service *SRD-303i only



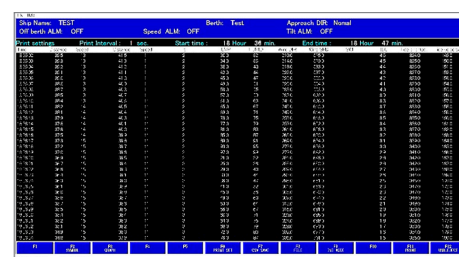
Display Mode



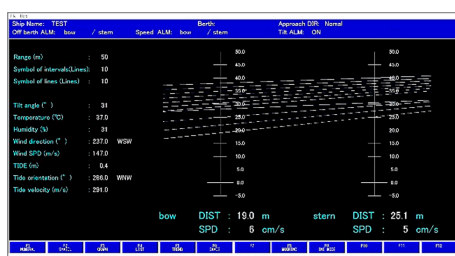
Sanding measurement (image)screen



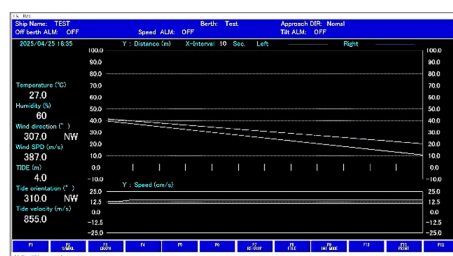
Sanding measure screen



Landing measurement (List)



Landing measurement (symbol)



Sanding measurement (graph) screen

► Specification

How to Use	Large Display Board Type	Portable Type
MODEL NANME	SRD-303i	SRD-701i
Measuring system	A laser sensor installed on the pier emits a laser beam and receives a reflected signal from the ship's hull (freeboard), thereby measuring the distance between the ship and the pier.	
Measurement method	Pulse laser reflection method	
Measurement range	Distance : 1m to 239m*1	
	Speed : 0cm/sec to ±99cm/sec	
	Tilt angle of vessel: within ±15 degrees*2	
Accuracy	Distance: Within ±1m(at distances from 10m to 239m	
	Distance: Within ±0.1m(at distances from -1m to 9.9m	
	Speed ±1cm/sec	
	Tilt ±1 degree	
EX Design	Large Board Display: Exp op is pxb IIB+H2 T4 Gb	Non-explosion Model
	Sensor: Exd II BT5	
Output data	RS-232C	
Wireless connection	-	434MHz band
Communication distance	600m	1000m
Power supply	100/240VAC	Measurement: 100/240 VAC
		Sensor: Battery x 2 (NiMH)
Quality Standard	Measurement unit	Measurement unit
	Ambient operating temperature	Ambient operating temperature
	5°C~40°C	5°C~40°C
	Ambient storage temperature	Ambient storage temperature
	5°C~50°C	0°C~50°C
	Sensor unit	Sensor unit
	Ambient operating temperature	Ambient operating temperature
	10°C~40°C	-10°C~40°C
	Ambient storage temperature	Ambient storage temperature
10°C~50°C	-10°C~50°C	
Humidity	85%RH(non-condensing)	
Data storage	Hard disk, USB memory	

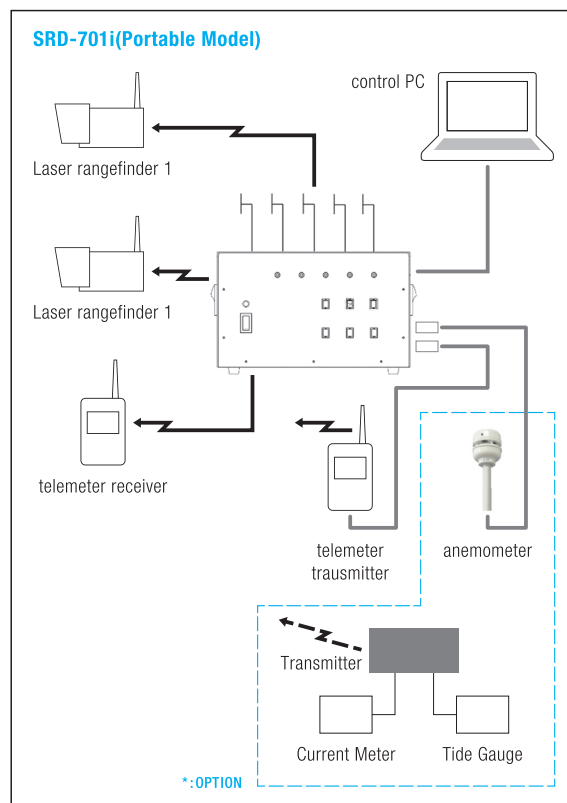
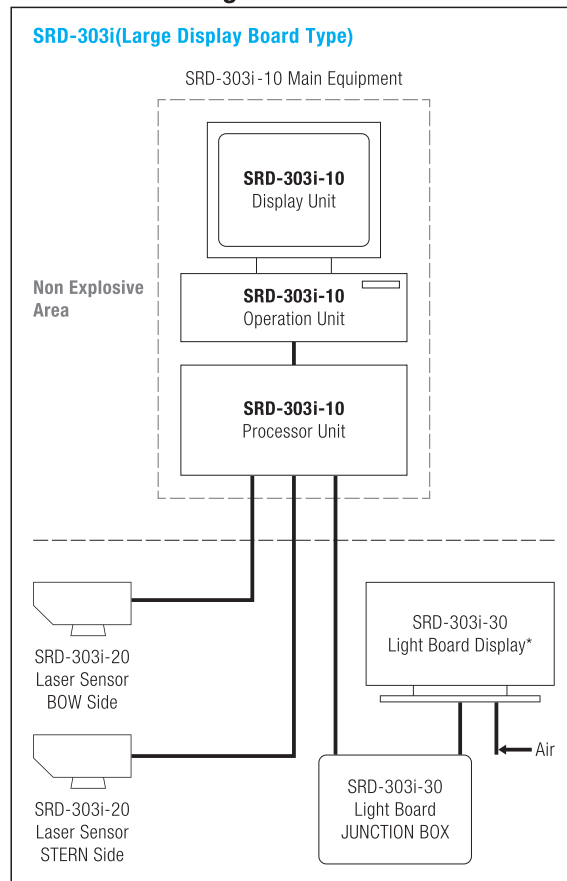
► Alarm setting

Speed alarm	1 to 99 cm/s(1cm/s increments: user-set)
Tilt Alarm	0.1 to 9.9m (0.1 m increments: user-set)
Off berth Alarm	0 to 90°(1°increments: user-set)

*1 The maximum measurement distance may be shorter depending on the shape and shape of the measured vessel and weather condition.

*2 The measurable distance and tilt of a ship will vary depending on the light (weather) at the time of measurement and the color and gloss of the ship's hull paint.

► Standard configuration



Safety precaution

To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact :