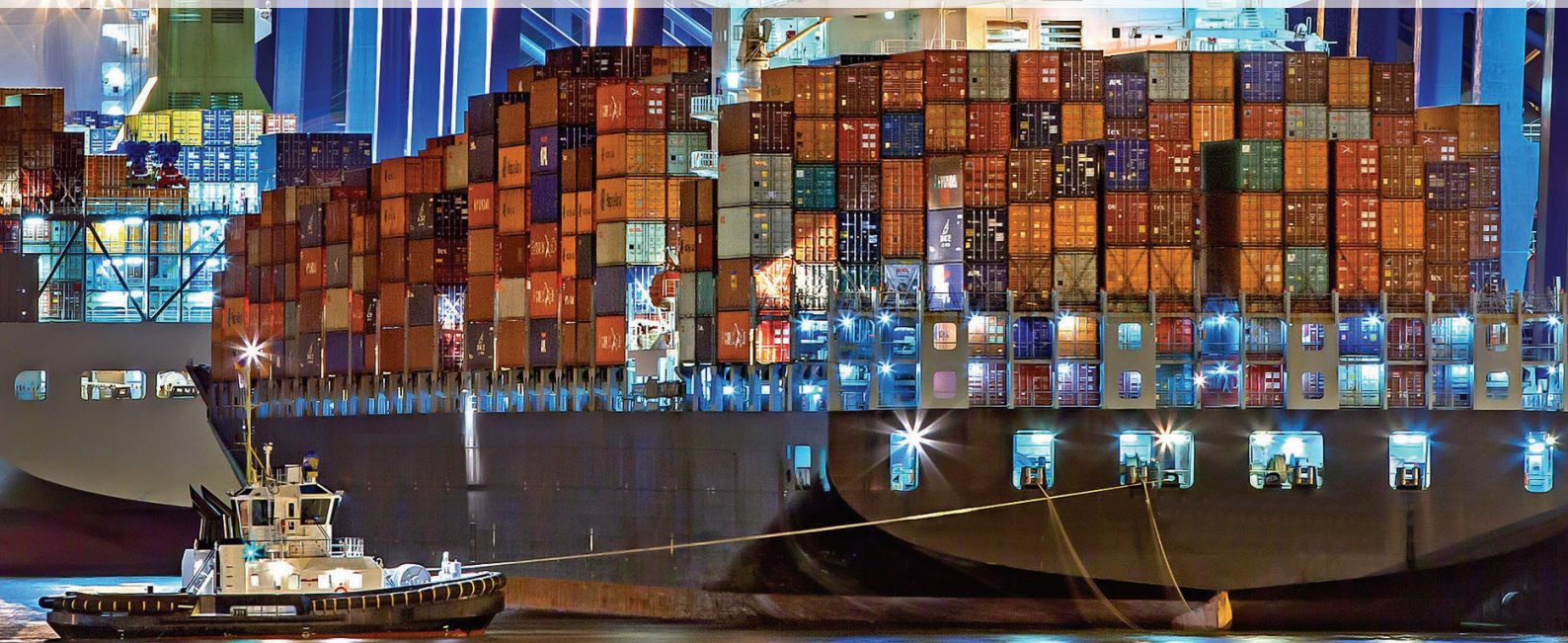


# Speed log

JLN-900

**JRC**



- Full compliance with IMO MSC.334(90) using a single device
- Enables measurement of ship speeds over ground up to depths of 250 m
- Three axis\* SOG and one axis STW
- Correlation technology
- Compact, lightweight gate valve included as standard



**Category**  
Over 50.000 GT



Deepsea

[jrc-world.com](http://jrc-world.com)

\* Requires gyro signal input.

# Integrated Speed Log for Lower Costs and Accurate Measurements of Ship Speeds through Water and over Ground

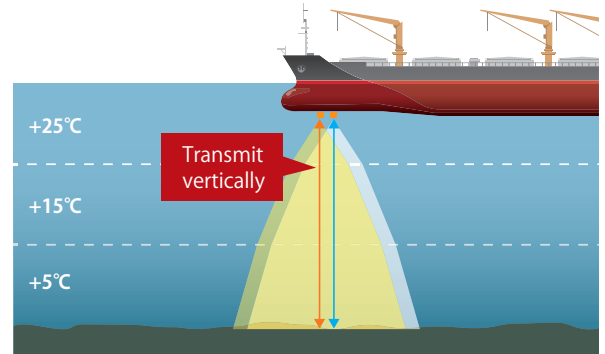


Tansducer CFT-780

Sea valve NKF-980

## Acoustic Correlation

The correlation system eliminates the effects of water temperature and salt concentration for more accurate and stable measurements. This enables high-accuracy measurements of ship speeds through water and over ground during pier docking and undocking.



Ultrasonic waves are emitted simultaneously in the vertical direction from multiple transducers, and the correlation of these waves is used to measure the ship speed. This eliminates the variations due to the propagation speed of the ultrasonic waves and changes in their angles.

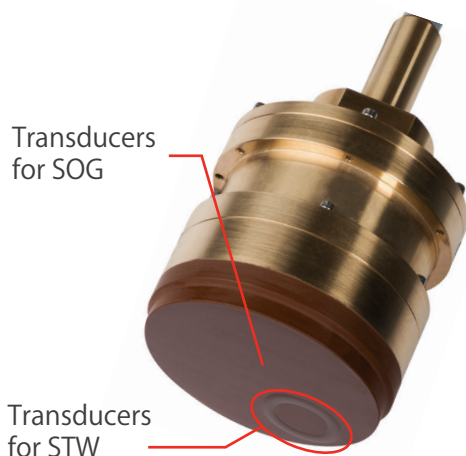
## One Speed Log for Compliance with Installation Requirement for Ships Exceeding 50,000 GT

\*MSC 334(90) effective from 1 July 2014

The requirements for SDME

	All passenger ships	> 300 GT, < 50,000 GT	Competitor Products > 50,000 GT	JLN-900 > 50,000 GT
STW (speed through the water)	1 unit	1 unit	1 unit	1 unit
SOG (speed over the ground)	—	—	1 unit	1 unit

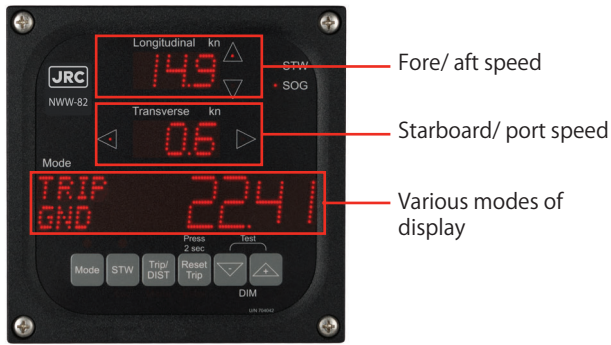
In the installation requirements\*, it is stated that separate speed and distance measuring devices must be fitted on ships of 50,000 GT and over for measuring the speed and distance through the water and over the ground. The JLN-900 is designed so that the system for measuring the speed and distance through the water is completely separated from the system for measuring the speed and distance over the ground. For this reason, major classification societies have recognized compliance with this requirement using only this speed log. The JLN-900 enables satisfying of the installation requirements with a minimum of equipment and costs.



## Combined transducer unit for both ground and water speed measurements

Separate transducer units for both ground and water speed measurements are used in an integrated design. This enables the device to be fitted using a single gate valve and aperture in the ship bottom for reduced costs.

# Displays



Main display NWW-82

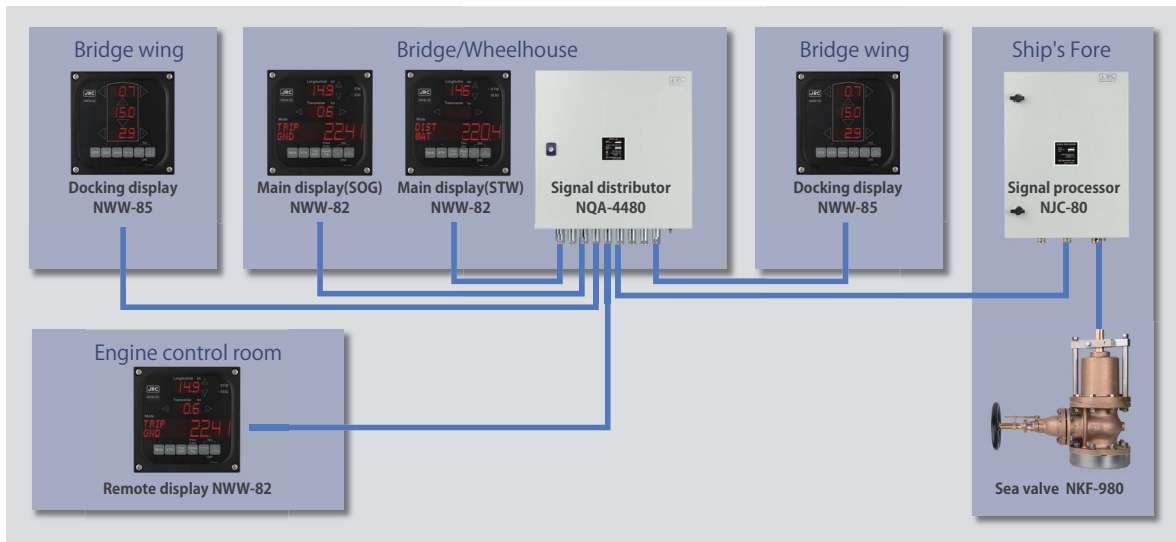


Docking display NWW-85 (Option)

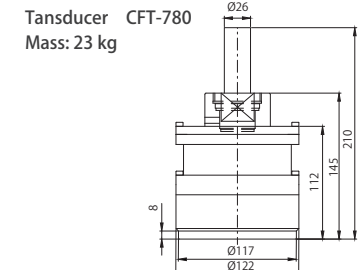
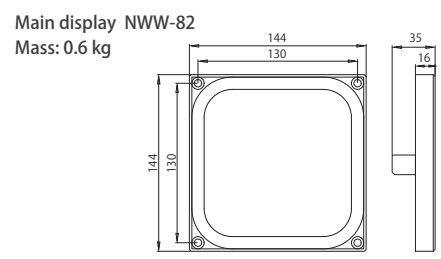
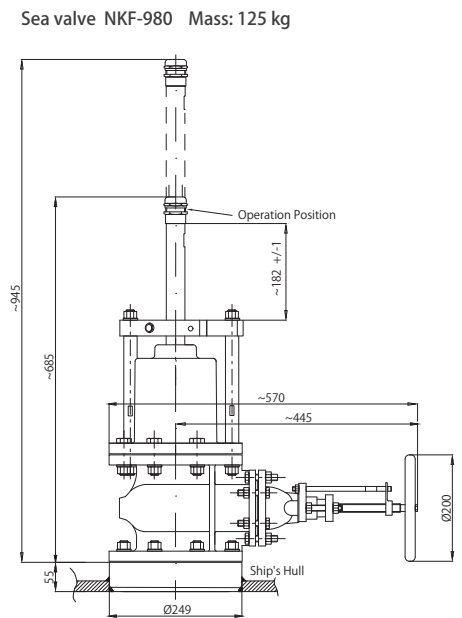
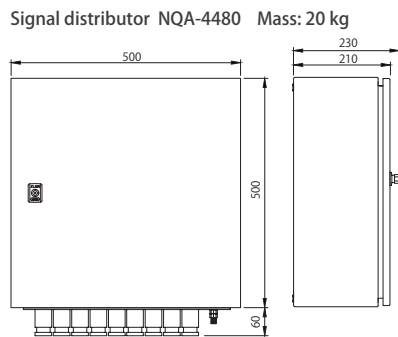
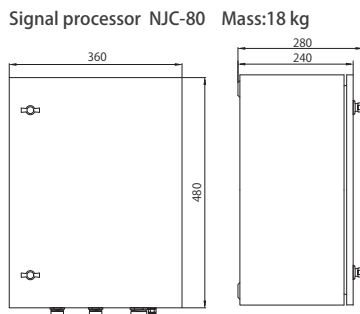


Analog display NWW-828 (Option)

# System Diagram



# Dimensions



# Specifications |

## Accuracy of measurement

Speed Through Water (STW)	
Frequency	In the range 3.8 – 4.2 MHz Speed is measured in a water volume 120–140 mm from the surface of the transducer
Depth requirement	greater or equal to 3 m beneath the transducer
Speed range	± 50 knots sensed Speed Through the Water
Speed accuracy	≤ 0.1 knot or 1.0 % whichever is greater
Speed Over Ground (SOG)	
Frequency	150 kHz
Depth requirement	greater or equal to 2 m beneath the transducer
Depth range	Nominally 2-250 m below transducer
Speed range	40 knots in any direction
Depth accuracy	≤ 0.2 knots or 2.0 % whichever is greater
Travell distance of measurement	
Range	Total: 99999.9 NM, Trip: 9999.99 NM
Distance accuracy	Distance travelled through the water ≤ 1.0 %
Travelled distance	2 to 10 NM ≤ 0.2 %, 10 to 50 NM ≤ 0.1 %, Over 50 NM ≤ 0.05 %

## Serial output

Digital output	① 23 serial outputs 【IEC 61162-1 Ed.4.0 (2010) (NMEA 0183 V-4.00)】 ② 200 p/NM speed output pulses (4 change over contacts, 4 closing contacts, 8 opto couplers )
Analog output	±0.1 V / 1 NM

## Electrical specification

Signal processor NJC-80	Voltage: 220-230 VAC (198–253), 100 VAC (90–110), optionally 115 VAC (100 - 126), Frequency: 47.5-63 Hz, Power consumption: typical 50 VA, peak at start up 300 VA
Signal distributor NQA-4480	Voltage: 220-230 VAC (198–253), 100 VAC (90–110), optionally 100-115 VAC (90-126), Frequency: 47.5-63 Hz, Power consumption: typical 15 VA, peak at start up: 150 VA including 3 pcs Display connected
Main display NWW-82	Voltage: 12-24 VDC (10–32), Power consumption: typical 1.5 W peak 3 W

# Components |

## Standard components

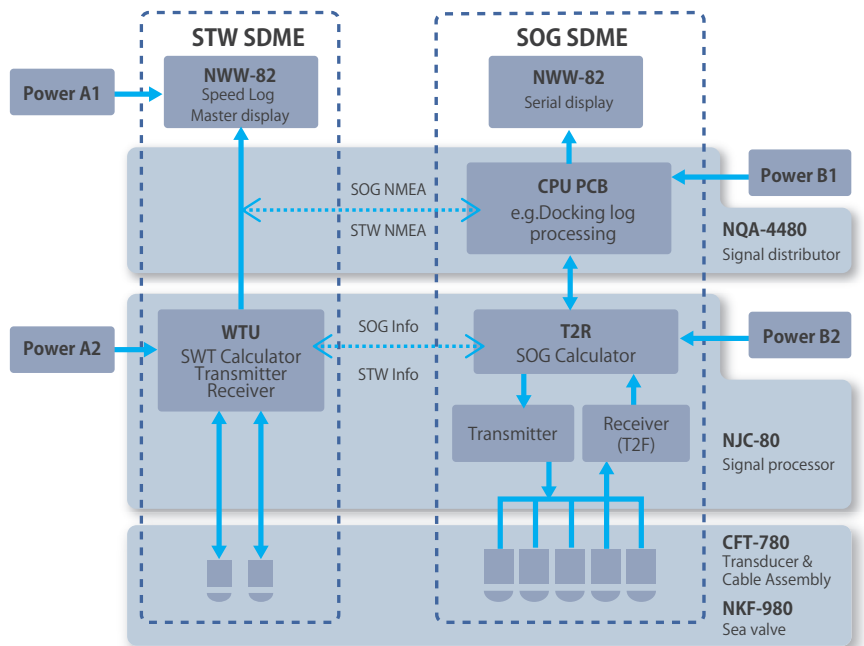
Name	Model	Q'ty
Signal processor	NJC-80	1
Signal distributor	NQA-4480	1
Sea valve	NKF-980	1
Transducer*	CFT-780	1
Main display	NWW-82	2

\*Transducer cable is a choice of 30 m or 40 m.

## Option

Name	Model
Docking Display	NWW-85
Bulkhead Mounting Box	704080
Extension Board	704110
Dimmer Unit	NCM-1080
Control Unit	NCM-1180
Analog Display	NWW-828
Spare parts	702193

# Diagram |



• Specifications may be subject to change without notice.

For further information, contact:



Since 1915

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