

Speed log

JLN-900



- Full compliance with IMO MSC.334(90) using a single device
- Three axis SOG and one axis STW
- Correlation technology
- Compact, lightweight gate valve included as standard



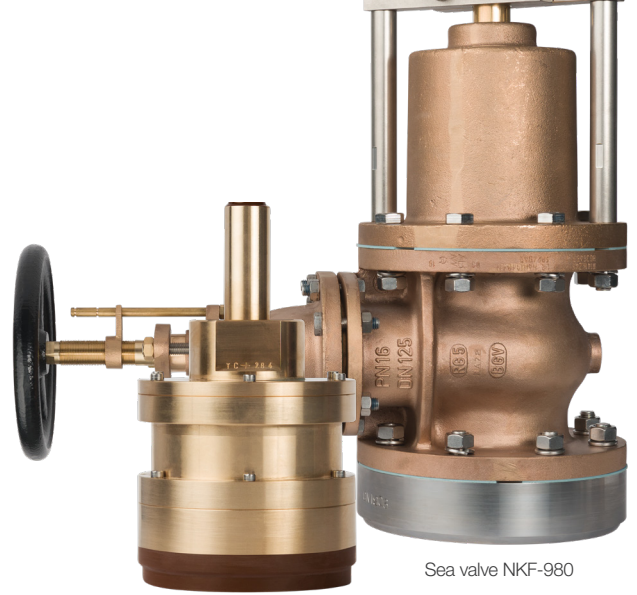
Category
> 50,000 GT



Deepsea

Features |

The JLN-900 series is a combined integrated speedlog compliant with the IMO MSC 334(90) standard, required on all internationally voyaging ships exceeding 50.000 GT. Due to it's unique combination of single axis speed through water and three axis speed over ground it provides highly accurate measurements and it reduces installation time and costs significantly.



Transducer CFT-780

Sea valve NKF-980

- Speed Over Ground (SOG) can be measured in three axis*
- Speed Through Water (STW) can be measured in one axis
- Measures ships Speed Over Ground up to depths of 250m
- Highly accurate speed and distance log
- Advanced correlation technology
- Flexible remote display options
- Small hull penetration
- Cost efficient solution
- Easy set up and calibration
- Low maintenance cost

* Requires gyro signal input

One Speed Log for Ships > 50,000 GT |

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.

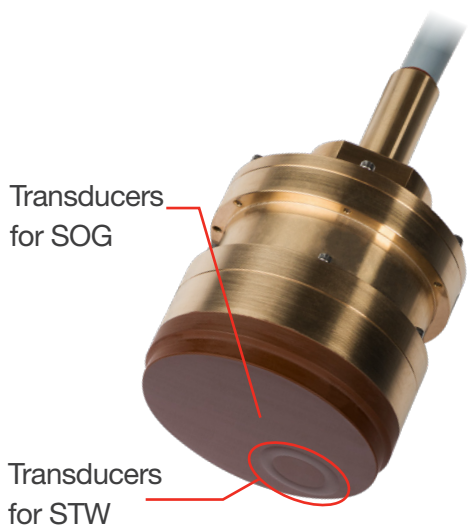
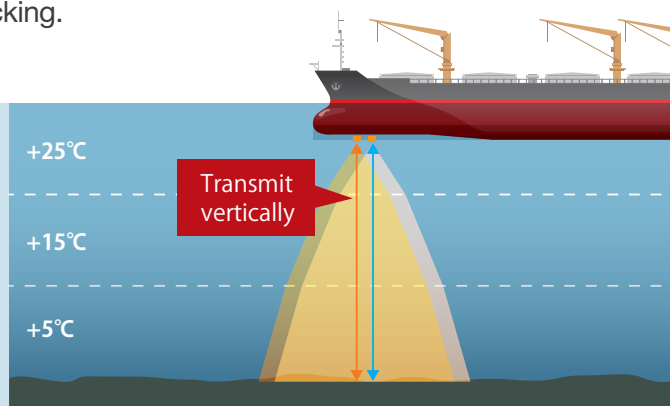
*MSC 334(90) effective from 1 July 2014

The requirements for SDME				Competitors		JLN-900
		All passenger ships	> 300 GT, < 50.000 GT	> 50.000 GT		> 50.000 GT
STW	Longitudinal	1 unit	1 unit	1 unit		<div style="border: 2px solid red; padding: 5px; text-align: center;"> 1 unit </div>
SOG	Longitudinal			1 unit		
	Transverse	Fore				
		Aft				

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.



Combined transducer

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 |



Fore / aft speed
Starboard / port speed
Various modes of display

Main display
NWW-82



Docking display
NWW-85 (Option)



Analog display
NWW-828 (Option)

In the box

- Signal processor NJC-80
- Signal distributor NQA-4480
- Sea valve NKF-980
- Transducer¹ CFT-780
- 2 x Main display (2 axis) NWW-82

¹ Transducer cable is a choice of 30 m or 40 m.

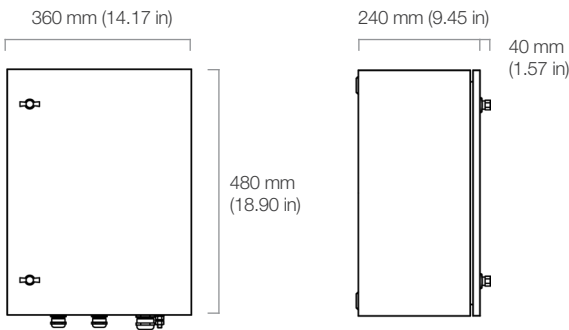
Optional

- Docking display (3 axis) NWW-85
- Bulkhead Mounting Box 704080
- Extension Board 704110
- Dimmer Unit NCM-1080
- Control Unit NCM-1180
- Analog Display NWW-828
- Spare parts 702193

Tech Specs |

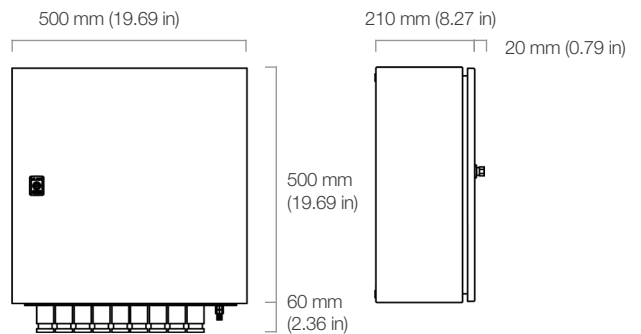
Signal processor

NJC-80 Weight 18 kg (39.68 lbs)



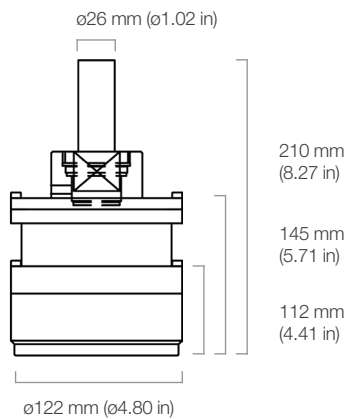
Signal distributor

NQA-4480 Weight 20 kg (44.09 lbs)



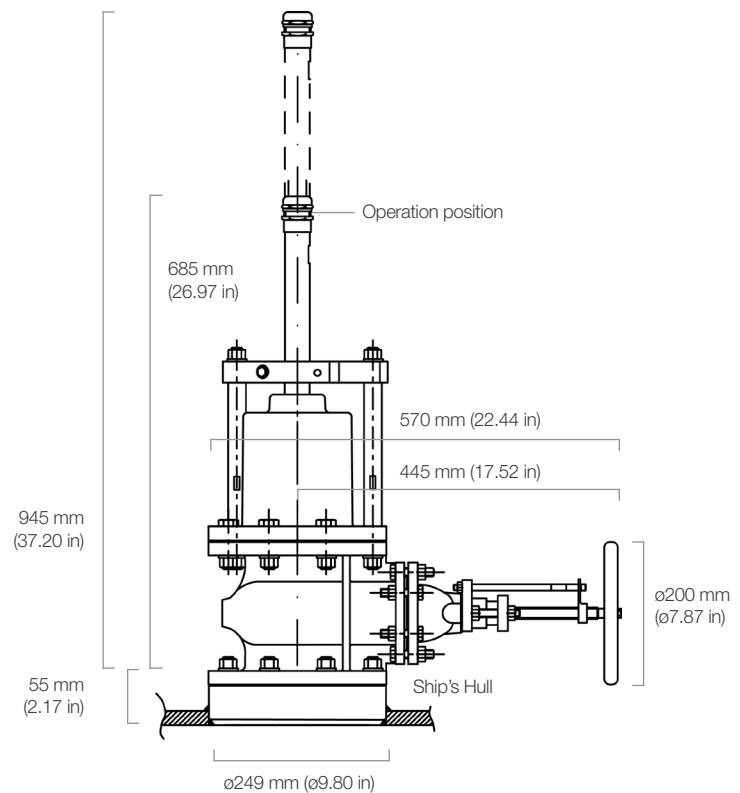
Transducer

CFT-780 Weight 23 kg (50.71 lbs)



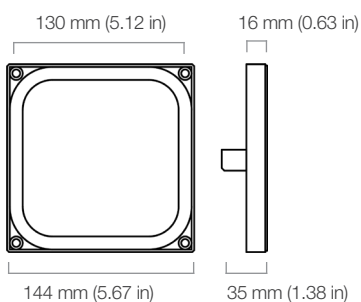
Sea valve

NKF-980 Weight 125 kg (275.59 lbs)

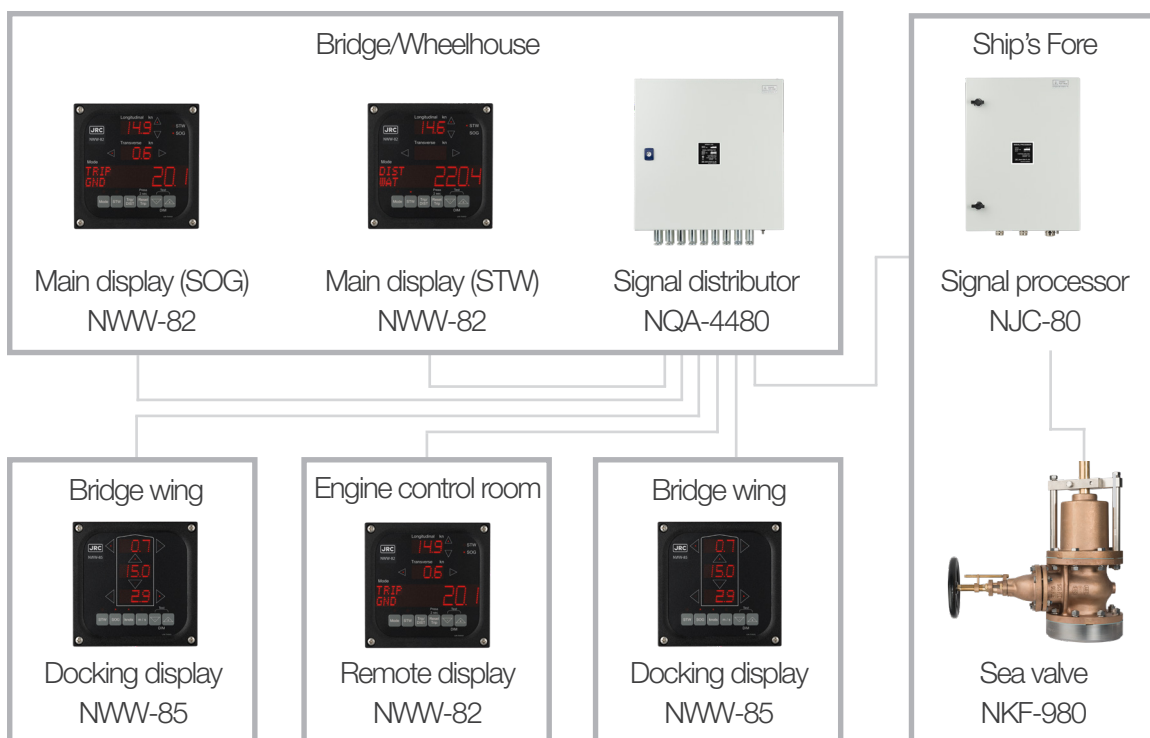


Main display

NWW-82 Weight 0.6 kg (1.32 lbs)



System Diagram |



Specifications |

Speed Trough 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

Travel distance of measurement

Range	Total: 9999.99 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	<ul style="list-style-type: none"> · 23 serial outputs (IEC 61162-1 Ed.4.0 (2010) (NMEA 0183 V-4.00)) · 200 p/NM speed output pulses (4 change over contacts, 4 closing contacts, 8 opto couplers)
Analog output	±0.1V / 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 including 3 pcs Display connected
Main display NWW-82	Voltage: 12-24 VDC (10–32), Power consumption: typical 1.5 W peak 3 W, powered from the NQA-4480



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Marine



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