

JRC

DOPLER SONAR

JLN-550

MED (EU Marine Equipment Directive) Certificate Number QQ-MED-07/03-01

*Stable Speed Display
in Dual Frequency Modes*



JRC *Japan Radio Co., Ltd.*

JLN-550

The JLN-550 Doppler Sonar is designed to provide ship speed information with higher stability in the dual frequency modes; one using a lower ultrasonic frequency that is adequate to measure the ship's speed against the ground up to larger depths and the other using a higher ultrasonic frequency that allows the ship's speed against the water to be measured even in water with tiny bubbles. The transducer is designed for dual-frequency transmission, but its size is smaller than the conventional models.

This equipment is designed to comply with the following standards:

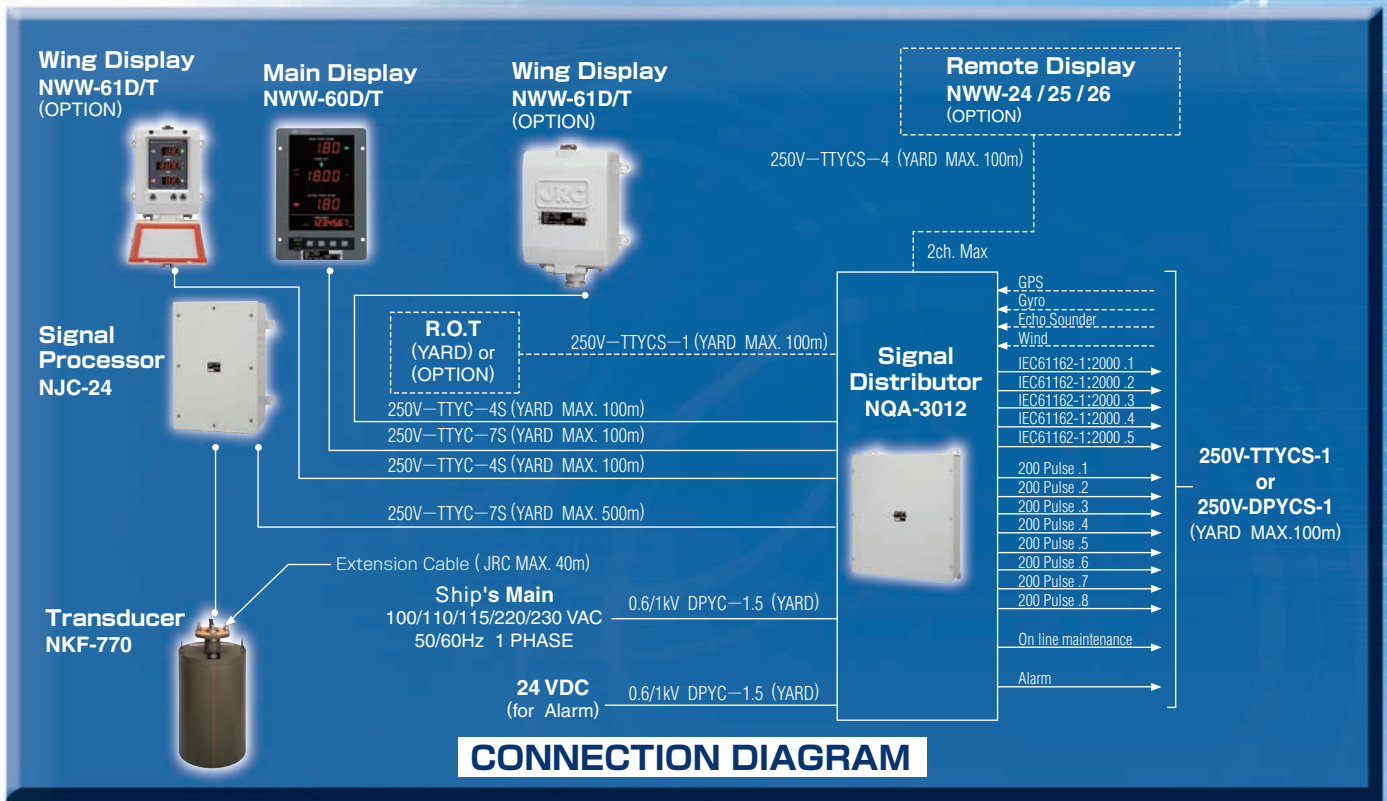
IMO A.824 (19)
Revised MSC.96(72), IMO A.694 (17), IEC61023:1999, IEC60945:2002 and IEC61162-1:2000

FEATURES

- Ship speed measurement is insensible to bubbles generated in high-speed navigation, ensuring stable speed display.
- The transducer is substantially downsized, allowing it to be installed on the bow side that is little affected by bubbles.
- An underwater-mateable connector is adopted for the transducer, so that a transducer can be replaced at a quay even in case of its failure.
- The equipment is provided with an additional function of indicating the ship's fore and aft speeds and port and starboard speeds by entering GPS information.
- The ship's port and starboard speeds at its arbitrary position can be indicated by entering ROT information.
- An optimal Doppler sonar system can be configured by combining a variety of options.
- On-line maintenance (option) allows any failure to be detected during navigation.

SPECIFICATIONS

Operating system	2-axis 4-beam pulse Doppler sonar or ROT-combined 3-axis 4-beam pulse Doppler sonar (ROT: option)
Operating frequencies	240kHz (BT: for speed against the ground) 2MHz (WT: for speed against the water)
Speed range	BT Fore/Aft: -10.00 to +40.00 kts Port/Stb.: -9.99 to +9.99 kts Stern P/S: -9.99 to +9.99 kts (with optional ROT) WT Fore/Aft: -10.00 to +40.00 kts
Distance run range	0 to 99999.99nm
Depth range	BT: 2 to 250m (below hull bottom) depending upon sea bottom conditions WT: 3m or more (below hull bottom)
Speed measuring accuracy	±1% or ±0.1 kts whichever is greater
Total distance run accuracy	±1% or ±0.1 nm whichever is greater
Ship speed indication	XX.XX 4-digit indicator (in kts or m/s) (P/S: 3-digit) Analog indication (in kts)
IEC61162-1 inputs (NMEA0183)	ROT (Stern P/S speed) **ROT (excl. GPROT) GPS (GPS ship speed) GGA, RMC, RMA, GLL, VTG GYRO (GPS ship speed) HDT, HDG
Data outputs	IEC61162-1: 2000 outputs: 5 circuits VBW, VLW, DPT, DBT DC voltage output: 2 circuits (for analog indicator) Opto coupler signal: 8 circuits (200 pulses/nm) Relay closure signal: 1 circuit (200 pulses/nm) Relay closure signal: 1 circuit (Power fail alarm)
Power supply	100/110/115/220/230VAC ±10%, 50/60Hz, single-phase
Power consumption	300VA or less
Operating temperature	-15 to +55°C



STANDARD COMPONENTS

Description	Model	Quantity	Remarks
Main Display	NWW-60DB	1	DB: 2-axis flush mount type (standard) DA: 2-axis wall mount type TB: 3-axis flush mount type TA: 3-axis wall mount type
Signal Distributor	NQA-3012	1	
Signal Processor	NJC-24	1	IP55
Transducer	NKF-770	1	With underwater-mateable connector and max. 40m cable
Spare Parts	7ZXBS0018	1	
Instruction Manual	7ZPBS2802	1	English

OPTIONS

Component	Model	Quantity	Remarks
Wing Display	NWW-61D	2	D: 2-axis, IP56 T: 3-axis
Remote Display	NWW-24	2 max.	Analog Flush-mount type
Remote Display	NWW-25		Analog wall mount type
Remote Display	NWW-26		Analog Flush-mount type
Distance Counter	NWW-7B	1	Flush-mount type
Gyro Sensor	NJZ-1080	1	ROT
Operator Unit	NWZ-120GA	1	ROT, GA: Wall-mount type GB: Flush-mount type
Rectifier	NBA-3263	1	ROT
Dimmer Unit	NCM-227	1	For NWW-60 Main Display Unit
Dimmer Unit	NCM-329H	1	For NWW-24/25/26 Remote Display Unit
Transducer	NKF-770W	1	Inner demountable type
Transducer	NKF-772	1	Gate valve type

DIMENSIONS & WEIGHT

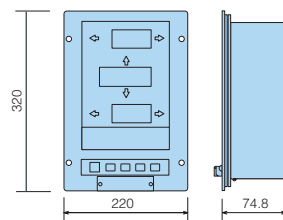
Main Display Unit

NWW-60DA

NWW-60DB

NWW-60TA

NWW-60TB

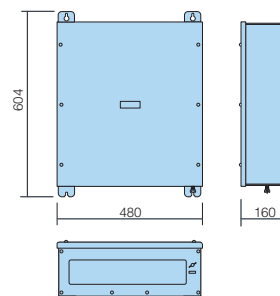
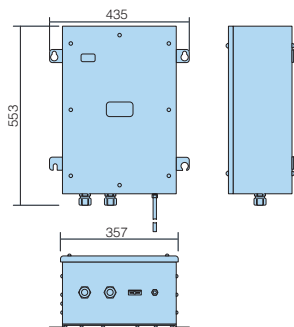


Signal Processor Unit

NJC-24

Signal Distributor Unit

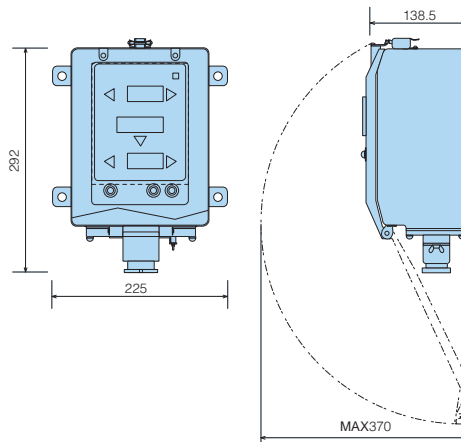
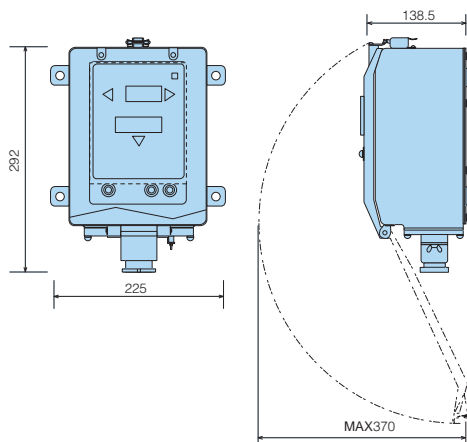
NQA-3012



Wing Display Unit

NWW-61D (option)

NWW-61T (option)



Transducer Unit

NKF-770

NKF-772 (option)

