FURUNO

DeepSea World

General Catalog

www.furuno.com

Our mission

Bringing together the most advanced navigational sensors and communications technology, Furuno provides the ability to create and implement optimal shipping methods and routes that consider safety, environmental and economic factors for long voyages.

A wide range of products for safer navigation

For safe and efficient navigation, Furuno provides a wide range of innovative radio-communications and radio-navigation equipment, complying with IMO, ITU, IEC, ISO and other relevant standards.

Innovative solutions, ahead of their time

The integration of the navigational equipment with new technologies, such as Augmented Reality, creates a brand-new experience in ship maneuvering. Furuno strives to respond to our customer's needs by incorporating the best of our knowledge and technological know-how into new products and services .

Worldwide service network

You will never be without spare parts and technical backup thanks to our worldwide service network, supported by Furuno's Continental Service Centers. Our experienced engineers perform the necessary technical service and support to remedy any situation.

![VOYAGER - FURUNO BRIDGE SYSTEM]

The most comprehensive bridge system (INS Type Approval)

FURUNO VOYAGER, FURUNO's unique bridge system, has been designed using our decades of expertise in sensor technology, network integration and software development. FURUNO VOYAGER bridge system offers multifunction workstations with seamless display of Radar/Chart Radar, ECDIS, Conning and Alert Management System data. FURUNO VOYAGER bridge system has been developed with an intuitive user interface and conforming to INS type approval and relevant class rules.

Total network sensor integration delivers situational awareness to the mariner. An uncomplicated display presentation simplifies and streamlines navigational tasks. Common responsibilities such as route planning, navigation status monitoring, log-keeping, alert awareness and day-to-day chart management are made easy through common workstation layout and redundancy of display and controls. Watchstanders will enjoy reduced workload and significant freedom to move about the bridge, with all necessary information available in a variety of displays and locations.

Furthermore, the AMS/Conning display is beautifully designed to show all essential navigational data on a single, comprehensive display. We place great importance on delivering crucial data to mariners in a clear and concise manner.

𝐸CDIS

Model: FMD-3200 (19" LCD)/**FMD-3300** (23.1" LCD or 27" wide LCD)
Model: FMD-3100 (24" wide LCD)

Displays official Electronic Navigational Charts (ENC) S-57 Edition, Raster Navigational Chart (RNC).
A Radar image, tracked targets and AIS data with the chart can be overlaid on the charts on ECDIS when conducting route planning and route monitoring. TCS certified.

Model: FMD-3300

CHART RADAR

Model: FAR-32x0 (19" LCD)/**FAR-33x0** (23.1" LCD or 27" wide LCD)

Featuring total integration of Radar and ENC Display System, FURUNO Chart Radar series display the Radar images together with ENC at the same time.

Model: FAR-33x0

RADAR

Model: FAR-22x8 (19" LCD)/**FAR-23x8** (23.1" LCD or 27" wide LCD)
        FAR-2xx8 (DC power supply type available)
Model: FAR-15x8 (15" LCD)

The latest digital signal processing technology and highly receptive antenna enables the Radar series to detect targets and show echoes with crisp images on your monitor, whether ships are moving fast around your vessel or located miles away.

Model: FAR-23x8

► **Wave Analysis option (WV-100/100ST) is available for model FAR-2xx8 series or FAR-3xx0 series.**
  This function displays wave information (height, direction, period, etc.) on the screen, useful for safely navigating.

► **Unique Ice Detection Mode (option) is available for model FAR-15x8, FAR-2xx7,FAR-2xx8 or FAR-3xx0 series X-band navigational Radar.**
  The Ice Detection mode is capable of finding the best route through icy waters. It removes image noise and the fine structures of the ice will become more visible.

► **Oil Spill Detection Mode (option) is available for model FAR-15x8, FAR-2xx7,FAR-2xx8 or FAR-3xx0 series X-band navigational Radar.**
  The oil Spill Detection Mode detects oil spills automatically and creates a polygon to mark the spill. This mode was developed with the aim of contributing to the protection of environment and marine life by detecting oil spills on the sea surface.

Navigation Equipment

NAVIGATIONAL ECHO SOUNDER

Model: FE-800

The FE-800 displays the clearance below ship in the dual frequency operation (50/200 kHz), when interfaced with two transducers. The depth at the fore and aft positions can be displayed simultaneously.

(option)

GNSS

Model: GP-170

The GNSS navigator GP-170 is an ideal position sensor for Radar, AIS, ECDIS, Autopilot, Echo Sounder and other navigation and communications equipment. Newly designed GPS chip and antenna unit deliver enhanced stability and precision in position fixing.
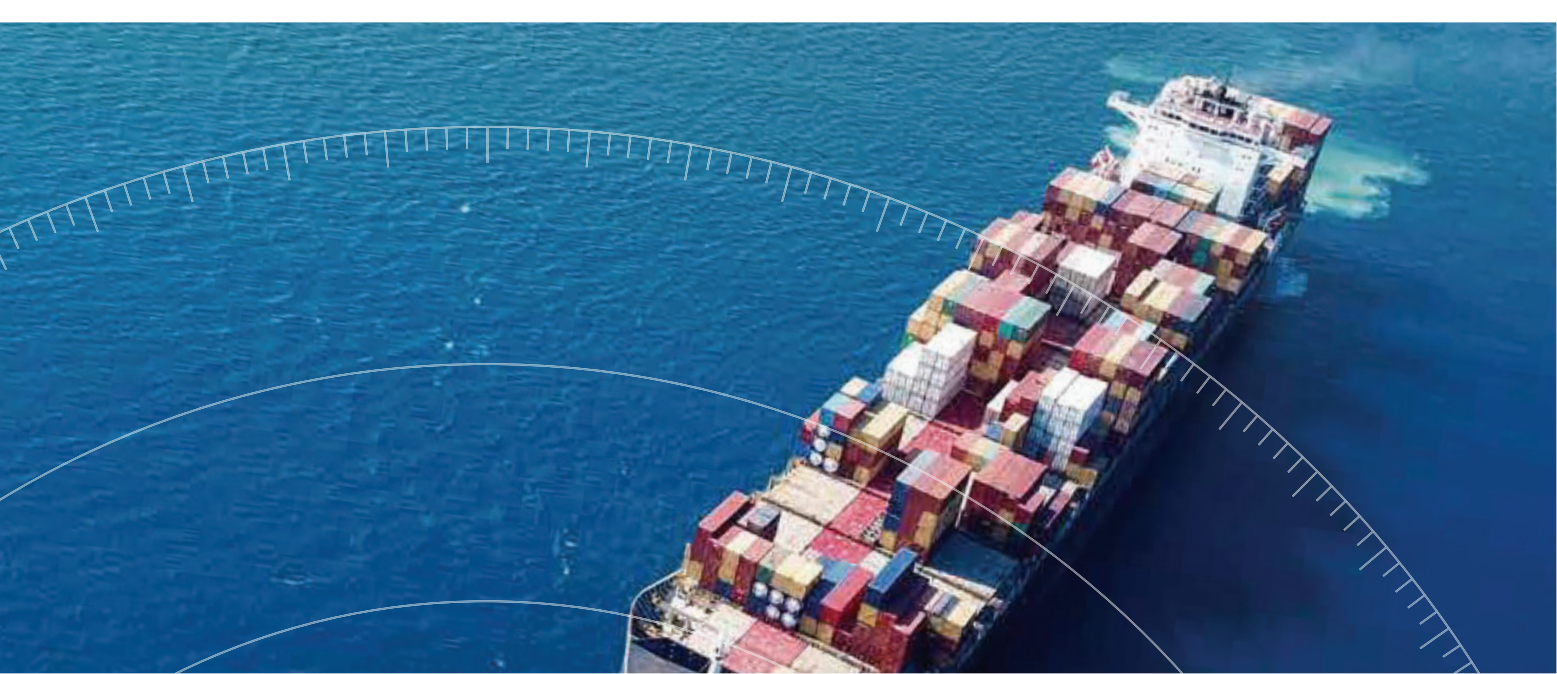GP-170 will be compatible with the GLONASS satellite system.

AIS

Model: FA-170

The FA-170 enhances the safety and efficiency in navigation by automatically exchanging navigational status and other safety-related information within the VHF coverage.

DOPPLER SONAR

Model: DS-60

The DS-60 is the SDME which outputs the information especially required for berthing and docking operation of vessels. It offers 3 display modes: 3-axis speed, berthing and NAV data. Independent STW and SOG sensors are required for 50,000 GT vessels.

DOPPLER SPEED LOG

Model: DS-85

The DS-85 indicates speed and distance on a large illuminated LCD. New transducer is resistant to air bubbles in the water, providing more stable and reliable data.
Recommended for vessels over 300 GT.

SATELLITE SPEED LOG

Model: GS-100

The measurement capability at dead slow speed is vital for precise docking of large ships. The GS-100 is the SDME and offers speed accuracy of ±0.02 kn, which is of great help during berthing operations.

VDR S-VDR

Model: **VR-7000/VR-7000S**

The VR-7000/7000S record the navigation data and assist investigators in identifying the causes of maritime casualty as well as to use the data for future reference to further incident prevention.

By connecting VR-7000/7000S installed on the ship to a PC on the land via satellite connection, data can be replayed or extracted.

BNWAS

Model: **BR-500**

The purpose of BNWAS (Bridge Navigational Watch Alarm System) is to monitor bridge activity and detect operator disability which could lead to marine accidents.

SATELLITE COMPASS

Model: **SC-70/SC-130**

The SC-70/130 are the latest generation of GPS compasses and increase the accuracy of other instruments, such as Radar, ECDIS, AIS, Doppler Sonar and Autopilots.

The SC-70/130 comply with IMO standards regarding THD and GPS.

REMOTE DISPLAY

Model: **RD-20/RD-50**

The RD-20/RD-50 display data from onboard sensors. The displays are switched by a remote controller and display brilliance of all units can be centrally controlled from one dimmer unit.

Model: RD-20 (144mm x 144mm)   Model: RD-50 (240mm x 240mm)

Communication Equipment

GMDSS CONSOLE

Model: RC-1800F2

The RC-1800F2 is a quality radio communications console, containing all the necessary radio equipment for ships operating in the GMDSS sea areas A2-3.

VHF

Model: FM-8900S

The FM-8900S is designed to comply with the GMDSS carriage requirements. All the necessary facilities such as a Class A DSC modem and a CH 70 watch receiver are included in the transceiver unit.

MF/HF

Model: FS-1575/FS-2575/FS-5075

In addition to MF/HF marine telephony communication facility, the FS-1575/2575/5075 is equipped with DSC plus DSC Watch Receiver capability on all distress and safety frequencies in MF and HF bands. NBDP facility is optionally available.
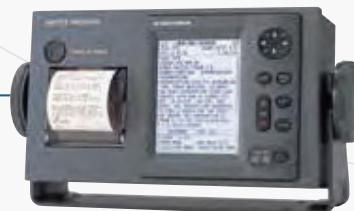
FS-1575 (150 W pep), FS-2575 (250 W pep), FS-5075 (HF: 500 W pep, MF: 400 W pep)

NAVTEX

Model: NX-700A/NX-700B

The NX-700 can receive the NAVTEX messages on 518 kHz and 490 kHz or 4209.5 kHz at the same time.

Model: NX-700A (display with a printer)   Model: NX-700B (display only)

MES
Inmarsat-C

Model: FELCOM18
(SSAS and LRIT compatible)

The FELCOM18 delivers full coverage of Inmarsat-C services: EGC reception (GMDSS), Inmarsat E-mail, distress message handling, polling, and data reporting. Additionally, the FELCOM18 is compatible with LRIT application and SSAS with optional SSAS alert unit.

MES
Inmarsat mini-C

Model: FELCOM19 (SSAS and LRIT compatible)

The FELCOM19 is a wide variety of communication schemes available: EGC reception (non-GMDSS), Inmarsat E-mail, distress message handling, polling, and data reporting.
Additionally, the FELCOM19 is compatible with LRIT application and SSAS with optional SSAS alert unit.

AlarmUnit
for GMDSS Distress

Model: IC-350

The IC-350 is the centralized control of distress alerting of connected GMDSS equipment. It is required for all passenger ships engaged in international voyage to equip collective alerting controller system. All audio alarms can be halted with a single press of the "Mute Alarm" button.

Weather Fax

Model: FAX-30/FAX-410

The FAX-30 automatically receives high quality weather maps and satellite images and displays them on an interfaced PC screen.
The FAX-410 prints the images on a sheet of 10" paper by a thermal printing mechanism.

Model: FAX-30   Model: FAX-410

SafeComNet™
FURUNO Mobile Satellite Services

SafeComNet™ - FURUNO Mobile Satellite Services covers scalable satellite communication packages and onboard network infrastructure for safe and effcient fleet operation.

inmarsat
FleetBroadband

Model: FELCOM251/501

FELCOM251 and FELCOM501 are FURUNO's latest Inmarsat FleetBroadband terminals, delivering ship-to-shore/ship-to-ship broadband communication of up to 432 kbps, anywhere at sea, by utilising the Inmarsat Fleet Xpress system coverage.

inmarsat
Fleet Xpress

Model: FV-60GX/110GX and FELCOM251/501

Fleet Xpress is the system which is composed of Inmarsat Global Express (Ka-band antenna) and Inmarsat Fleet Broadband (L-band antenna). By using properly Ka-band antenna and L-band antenna, Fleet Express implement communication performance of both safty and high speed.

Model: FV-110GX

Model: FELCOM251/501

VSAT

Model: FV-110

The FV-110 is an advanced technology and reliable Ku-band antenna which is compatible with various VSAT platforms. This is a VSAT antenna that offers hassle-free installation and delivers high RF performance in a 1m size.
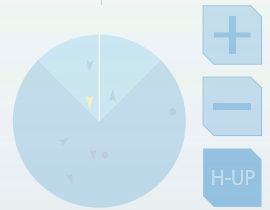
Driving the Digitalization of Navigation

ENVISION

FURUNO ENVISION
A revolutionary solution
Designed for the future of navigation

AR Navigation System

Beyond Reality

FURUNO ENVISION's AR Navigation System (Model:AR-100M) is our all-new advanced augmented reality navigation system that provides substantial support to navigation, using the power of AR to go beyond reality.

Thanks to a camera pointed forward of the vessel, an image of the front view projects on a display and all the necessary navigation information is superimposed over this live video imagery by our AR technology.

The unique graphic user interface of AR Navigation System reduces workload and stress from watch duties, while intuitive readings help contribute to safety of navigation by enhancing situational awareness.

※AR navigation is an auxiliary tool designed to improve the navigation comfort for safer navigation.
In no case should AR navigation replace Radar, ECDIS etc. and other required instruments for danger avoidance.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE