

**SPECIFICATIONS**

	NAVpilot-700	NAVpilot-711	NAVpilot-720
<b>CONTROL UNIT</b>			
Display	Monochrome LCD		
Effective Display Area	85.2 (W) x 85.2 (H) mm	85.2 (W) x 43.6 (H) mm	
Pixel Number	160 x 160 dots	160 x 80 dots	
Backlight	8 steps		
Contrast	16 steps		
<b>PROCESSOR UNIT</b>			
Rudder Angle Adjustment	STBY, Auto, Navigation*, Wind**, Fish Hunter*, Turn, Tack, NFU, FU, Dodge * Navigational data required ** Wind data required		
Sea Condition Adjustment	AUTO/CALM/MODERATE/ROUGH		
Rudder Angle Settings	55° max		
Alarm	Deviation, Out of course*, Watch, Ship's speed*, Water temperature*, Depth*, Log*, Wind Deviation** * Navigation data required ** Wind data required		
<b>INTERFACE</b>			
Ports	CAN bus: 1, NMEA0183: 2		
Input	(NMEA0183) AAM, APB, BOD, BWC, BWR, DBT, DPT, GNS, GGA, GLL, HDG, HDT, HDM, MTW, MWV, RMC, RMB, ROT, RSA, THS, TLL, VTG, VHW, VWR, VWT, XTE, ZDA (CAN bus) 059392, 059904, 060928, 126208, 126992, 126996, 127250, 127251, 127258, 127488, 127489, 128259, 128267, 129025, 129026, 129029, 129033, 129283, 129284, 129285, 130306, 130310, 130311, 130577, 130312, 130313, 130314, 130577		
Output	(NMEA0183) DBT, DPT, GGA, GLL, GNS, HDG, HDM, HDT, MTW, MWV, RMB, RMC, ROT, RSA, VHW, VTG, VWR, VWT, ZDA (CAN bus) 059392, 059904, 060928, 126208, 126464, 126992, 126996, 127245, 127250, 127251, 127258, 128259, 128267, 129025, 129026, 129029, 129033, 129283, 129284, 129285, 130306, 130310, 130311, 130312		
<b>ENVIRONMENT</b>			
Temperature	-15°C to +55°C		
Waterproofing	Processor unit	IP20	
	Other unit	IP56	
<b>POWER SUPPLY</b>			
	12-24 VDC: 4.0 A (excluding pump)		
<b>EQUIPMENT LIST</b>			
Standard	Control Units* (FAP-7001/7011/7021), Processor Unit FAP-7002, Installation Materials and Spare Parts *Specify when ordering		
Options	Control Units, Flush Mount Kits, Hanger Kits, Cradle, Rudder Reference Units FAP6112-200*, Remote Controllers, Cables, Connectors, Junction Box, Pump Unit, FPS8 Power Steering Module		

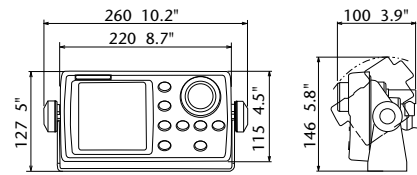


**FURUNO**

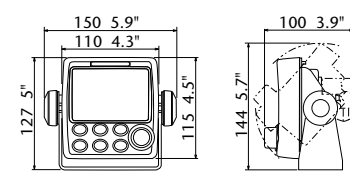
# NAVpilot

NAVpilot-700/711/720  
AUTOPILOT

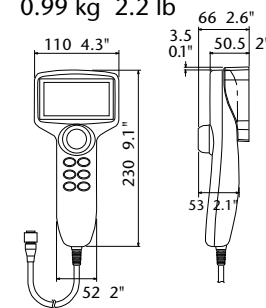
NAVpilot-700 Control Unit (Bracket-mount) FAP-7001 0.9 kg 1.9 lb



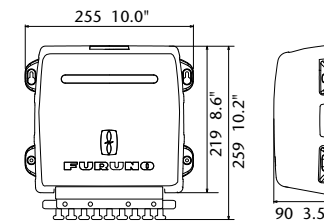
NAVpilot-711 Control Unit (Bracket-mount) FAP-7011 0.52 kg 1.15 lb



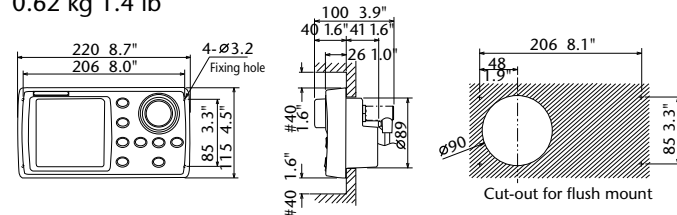
NAVpilot-720 FAP-7021 0.99 kg 2.2 lb



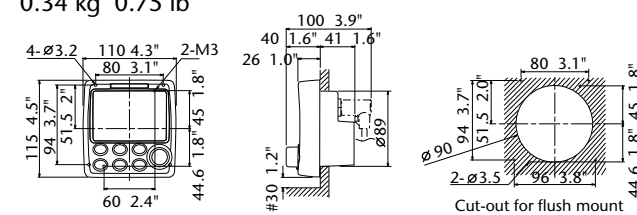
Processor Unit FAP-7002 1.9 kg 4.2 lb



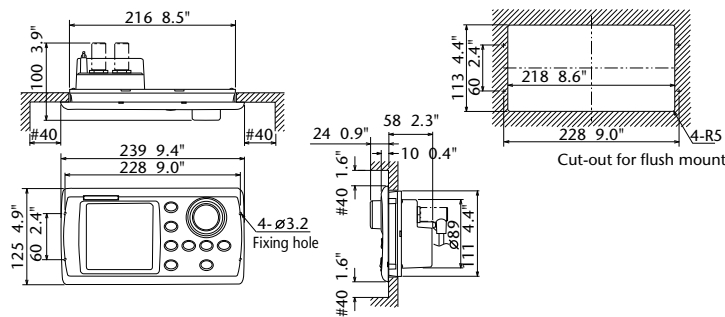
NAVpilot-700 Control Unit (Surface-mount) 0.62 kg 1.4 lb



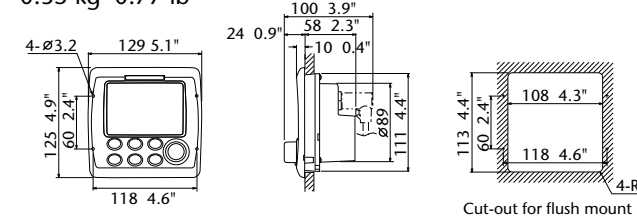
NAVpilot-711 Control Unit (Surface-mount) 0.34 kg 0.75 lb



NAVpilot-700 Control Unit (Flush-mount) 0.64 kg 1.4 lb



NAVpilot-711 Control Unit (Flush-mount) 0.35 kg 0.77 lb



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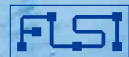
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# Kick back, relax and let NAVpilot steer you to your destination!

FURUNO's NAVpilot is a revolutionary autopilot with a sunlight viewable display designed for a variety of vessels.

It utilizes a self-learning and adaptive software algorithm, and plays the ultimate role in course keeping capability, dynamically adjusting essential parameters for navigation i.e., vessel speed, trim, draught, tide and wind effects, dead band, weather, etc. These parameters are stored in the system memory and continuously optimized.



NAVpilot's remarkable self-learning, adaptive software is developed by collaborative works between FURUNO and FLSI.

## NAVpilot

NAVpilot-700

NAVpilot-720

NAVpilot-711



- ▶ **Furuno Fantum Feedback** - allows for no physical rudder feedback unit for a streamlined installation and precise course control
- ▶ **Optional revolutionary SAFE HELM and POWER ASSIST** brings unrivaled steering control and comfort at the helm\*
- ▶ **Selectable "Economy" and "Precision" Navigation Modes** combine adaptive technology providing fuel and power savings of up to 2.5% or more.\*\*

- ▶ **"Precision" XTE accuracy: within 0.003 nm**
- ▶ **Simplified activation set-up by on-screen wizard**
- ▶ **Perfect for inboard or outboard power boats and sail boats**
- ▶ **Simple one-touch mode selection enables flexible steering and course control**

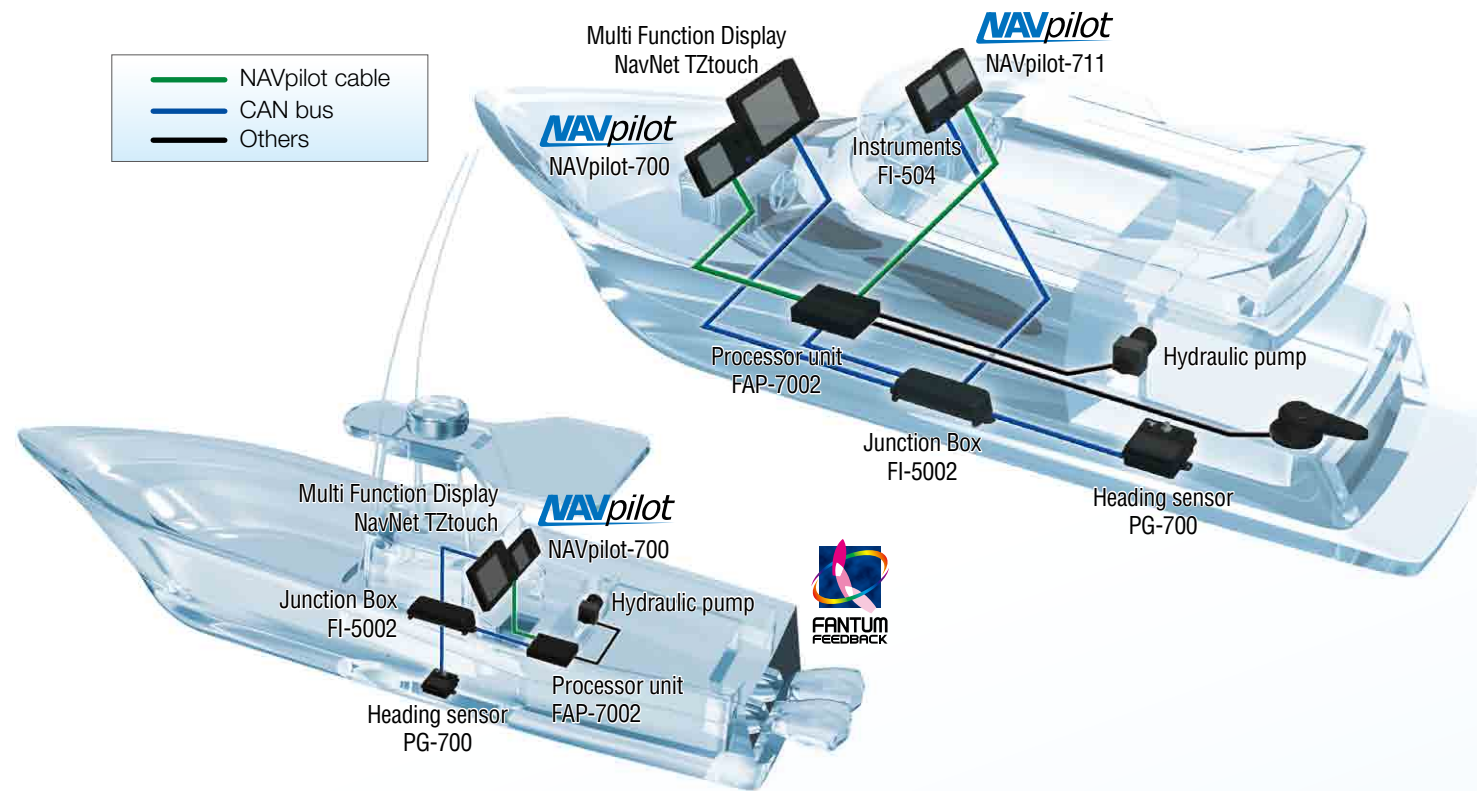
\* Required Options - HRP11 or HRP17 Pump and FPS8 Power Steering Module  
 \*\* Based on Furuno testing and "Scenarios for a Clean Energy Future 2000" - U.S. Department of Energy (www.oml.gov/sci/eere/cef)



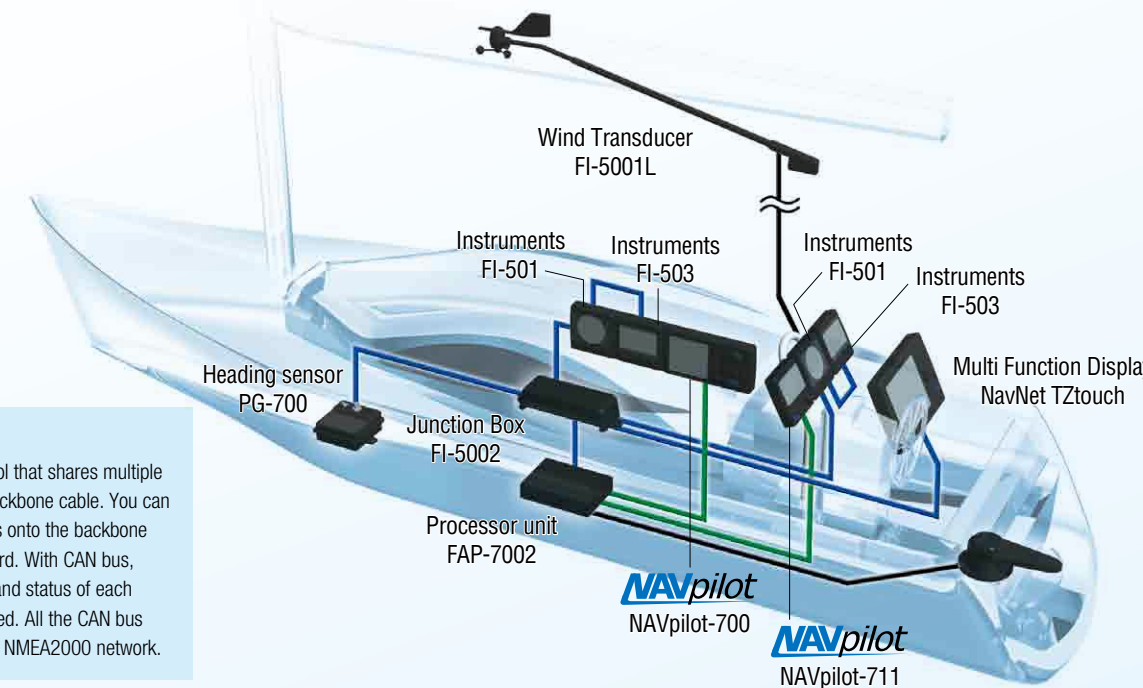
Furuno's new NAVpilot series is designed to match the NavNet TZtouch, NavNet 3D, FI-50 Instrument series and other navigation equipment. The "Plug and Play" CAN bus interface allows for easy installation and exceptional interface ability. The diagrams below show typical installations for power and sail boats.



### POWER BOAT



### SAIL BOAT



#### What is CAN bus?

CAN bus is a communication protocol that shares multiple data and signals through a single backbone cable. You can simply connect any CAN bus devices onto the backbone cable to expand your network onboard. With CAN bus, IDs are assigned to all the devices, and status of each sensor in the network can be detected. All the CAN bus devices can be incorporated into the NMEA2000 network.





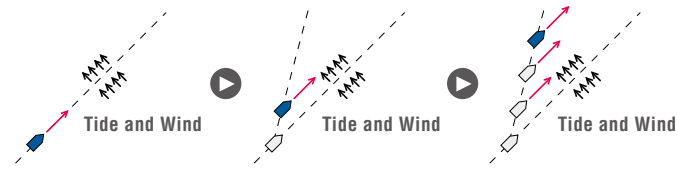
## Self-learning and adaptive software

From the first dock-side setup through the last voyage you made, NAVpilot continues to learn your vessel's steering characteristics. This allows dynamic adjustments to the boat's steering for vessel speed, trim, draft, tide and wind effects, weather, etc. These characteristics are stored in the processor's memory where they are continuously optimized to make the NAVpilot more versatile.

### Auto mode



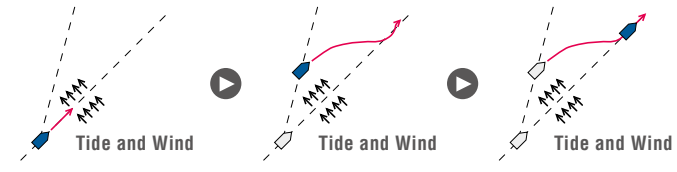
NAVpilot consistently maintains the desired heading, but the vessel may drift off course due to the effects of tide and wind.



### Advanced mode



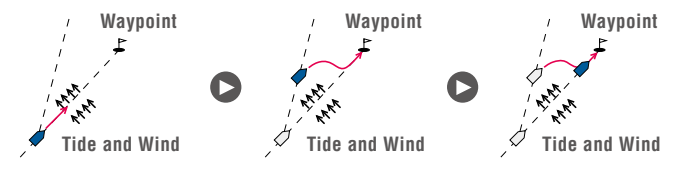
NAVpilot consistently maintains the desired heading while compensating for the effects of tide and wind.



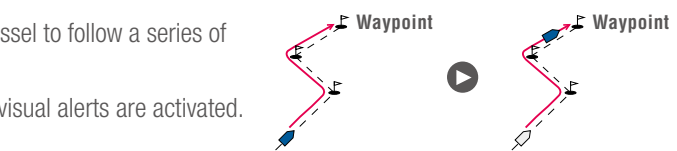
### NAV mode / Route tracking



NAVpilot steers the vessel towards the current waypoint while compensating for the effects of tide and wind.



When connected to a GPS Navigator, NAVpilot steers the vessel to follow a series of waypoints in succession. Upon arriving at each waypoint or destination, audible and visual alerts are activated.

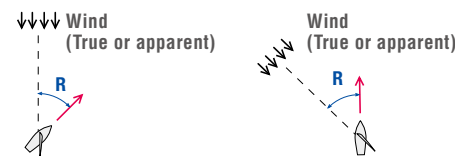


### Wind mode\*



NAVpilot consistently maintains the desired heading toward true or apparent wind direction while compensating for the effects of tide and wind.

\* This mode is available for sailing craft only. Wind data input is required.



## New SAFE HELM and POWER ASSIST features provide Efficient and Effective Helm Steering Control



The optional SAFE HELM and POWER ASSIST features\* provide a unique interface to the vessel's hydraulic hand steering system, providing unrivaled comfort and control of the vessel's steering directly from any manual helm on the vessel. These two modes greatly reduce steering effort and enhance the safety of your vessel's autopilot. \* Required Options - HRP11 or HRP17 Pump and FPS8 Power Steering Module

### SAFE HELM

The SAFE HELM temporarily switches the NAVpilot to manual steering for a specified time interval, taking it out of an automatic steering mode (AUTO, NAV, etc.) After the time interval has elapsed, SAFE HELM is deactivated and the previous automatic steering mode is restored.

### POWER ASSIST

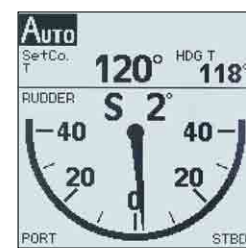
The POWER ASSIST incorporates the SAFE HELM concept and provides speed-based, power assisted steering, which greatly reduces manual helm effort in maneuvering situations. POWER ASSIST is a unique helm-activated assisted steering feature that can augment and possibly replace separate electric and power-robbing, engine-driven power steering systems on many vessels. POWER ASSIST reduces steering system complexity and costs while increasing economy.



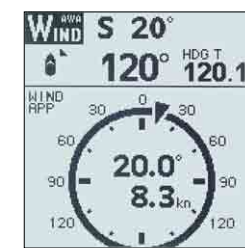
## Display modes for NAVpilot-700 and NAVpilot-711/720

Various display options to customize data to suit your own preferences using a variety of digital and analogue graphics.

### Display modes for NAVpilot-700

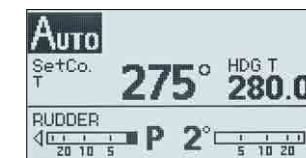


Rudder Angle



User Customizable Display

### Display modes for NAVpilot-711/720



User Customizable Display

## Furuno Fantum Feedback



Furuno's all-new "Fantum Feedback" NAVpilot software clears the path to a simplified installation, while also delivering enhanced steering control. With Fantum Feedback, NAVpilot outboard installations no longer require use of a physical rudder feedback unit.

This streamlined installation, combined with Furuno's unique adaptive learning Autopilot technology, provides unmatched outboard Autopilot performance. Fantum Feedback is a menu-selectable feature available in the latest NAVpilot-700 series software. This new software was developed and extensively tested on a wide variety of outboard vessels with hydraulic steering and reversing pump control. Fantum Feedback achieves precise course control, from slow trolling speeds to high-speed cruising, utilizing a newly developed, time-based rudder gain process, rather than traditional rudder angle based control.



## FishHunter

FishHunter is a unique feature of FURUNO's NAVpilot series. Find a fish target with your FURUNO sonar/sounder or bird target with your FURUNO radar and feed it to the NAVpilot. The NAVpilot will activate the FishHunter to perform square, zigzag, circle, orbit, spiral or figure eight maneuvers around the specified target at a user selected distance.

