

FURUNO

DOPLER SONAR CURRENT INDICATOR

Model

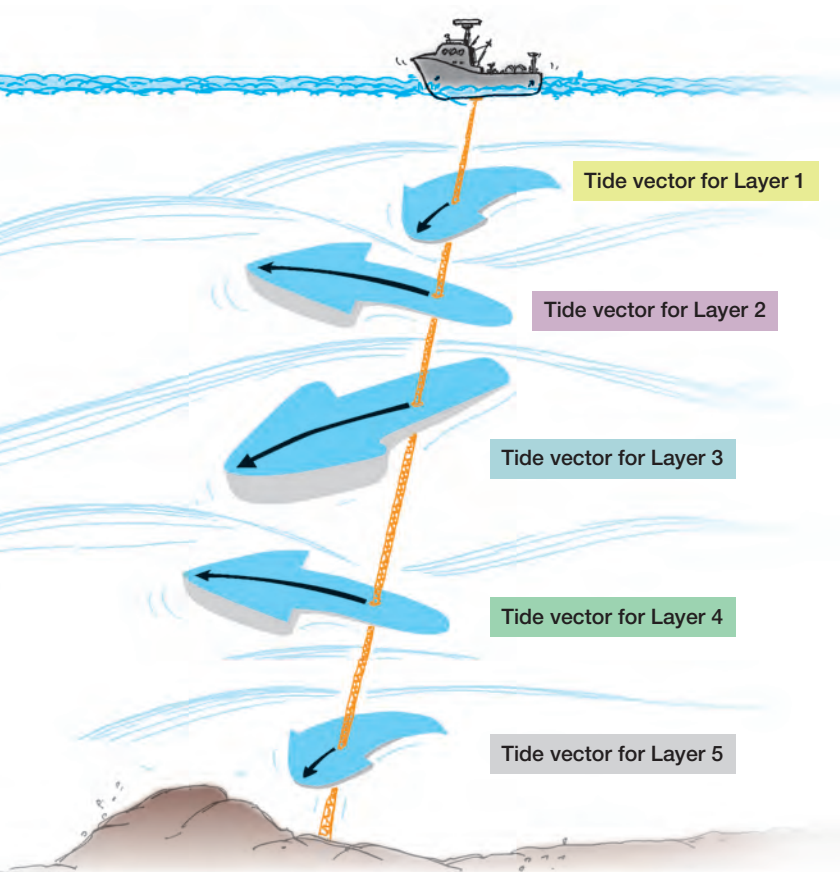
CI-68

High-performance current indicator displays accurate speed and current data at five depth layers on a 10.4" color TFT or virtually any VGA monitor utilizing a Black Box system



Obtain highly accurate water current measurements using *FURUNO's* reliable acoustic technology.

The absolute movements of tide measuring layers are displayed in colors.



The FURUNO CI-68 is a Doppler Sonar Current Indicator designed for various types of fish and hydrographic survey vessels.

The CI-68 displays tide speed and direction at five depth layers and ship's speed on a high definition 10.4" color LCD. Using this information, you can predict net shape and plan when to throw your net.

The CI-68 has a triple-beam emission system for providing highly accurate current measurement. This system greatly reduces the effects of the rolling, pitching and heaving motions, providing a continuous display of tide information.

When ground (bottom) reference is not available acoustically in deep water, the CI-68 can provide true tide current information by receiving position and speed data from a GPS navigator and heading data from the satellite (GPS) compass SC-50/110 or gyrocompass. In addition, navigation information, including position, course and ship's track, can also be displayed.

The CI-68 consists of a display unit, processor unit and transducer. The control unit and display unit can be installed separately for flexible installation. A BlackBox configuration (without monitor) is also available. CI-60G users can easily upgrade without drydocking to CI-68 since it uses the same transducer as the CI-60G.

- Compact 3-unit design for ease of installation and maintenance
- High definition 10.4" color LCD
- Blackbox system configuration allows for use of optional LCD monitors
- Six display modes to discern tide movement from a variety of angles
- Continuous display of tide speed and direction at five different depth layers
- Triple-beam system for automatic error compensation against pitching and rolling
- True tide current presentation with external GPS navigator and Satellite compass

TIDE VECTOR

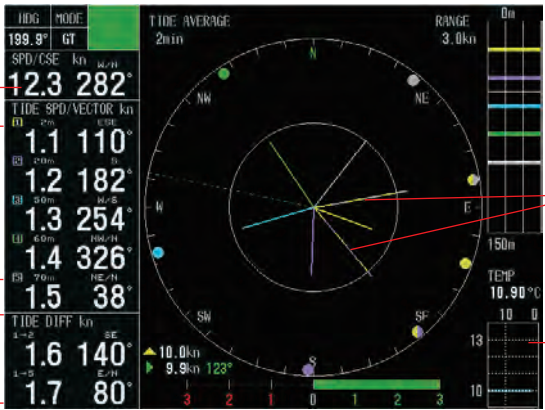
TEXT



Ship's speed and course

Tide speed and direction

Tide differences



Tide vectors for speed and direction

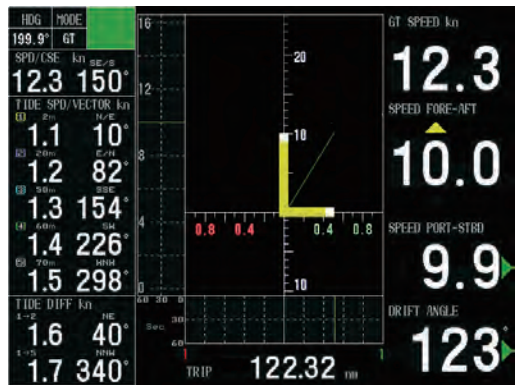
- Layer 1 —
- Layer 2 —
- Layer 3 —
- Layer 4 —
- Layer 5 —

Tide vectors for tide differences between

- Layer 1 and 5 —
- Layer 1 and 2 —

Water temperature (external temp. sensor required)

Tide speed and direction for the fifth depth layers are displayed with vectors. The depth of each layer can be set manually in 1 m intervals. Other information such as tide differential between the basic layer and the reference layer, heading and course can also be displayed in large text.



SHIP'S SPEED

Displays the speed components for fore-aft and port-starboard. The synthesized vector (green line) intuitively shows drift direction. The speed source is selectable on the menu from ground tracking or water tracking.



TRACK

Tide vectors can be shown on the ship's track in user specified intervals.

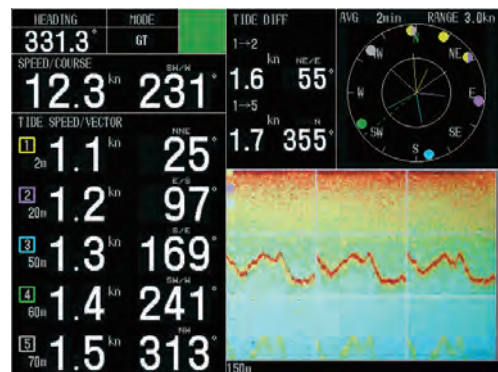
TIDE LOG

Displays the tide information over the past twelve hours.



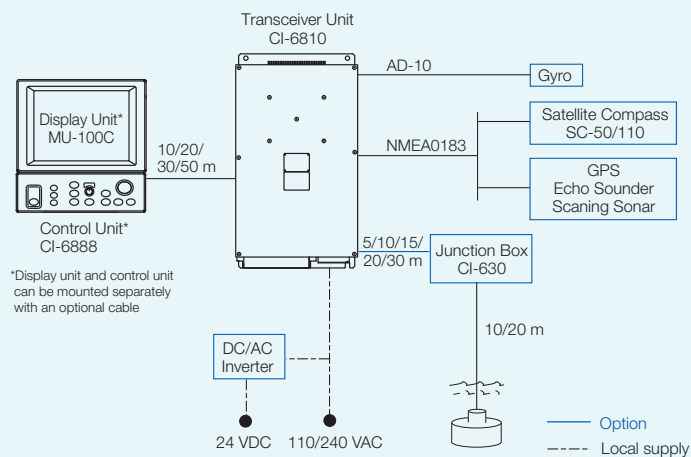
ECHO LEVEL

Displays echogram obtained from each beam. It helps evaluate the concentration or distribution of fish school or seabed at three directions simultaneously.

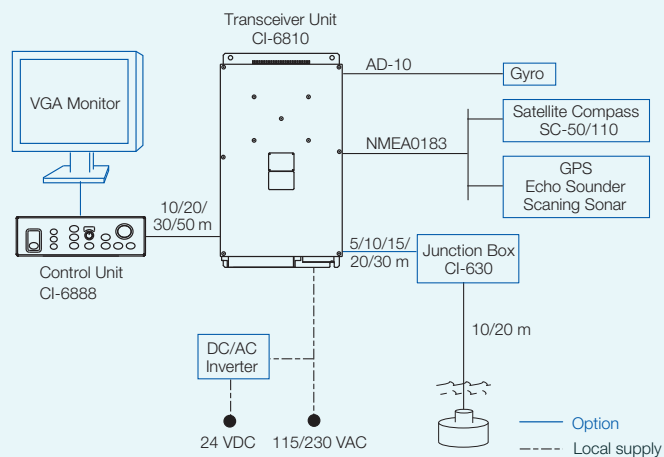


INTERCONNECTION DIAGRAM

Standard configuration (with standard LCD monitor)



BlackBox configuration (with custom monitor)



*Display unit and control unit can be mounted separately with an optional cable

— Option
- - - Local supply

— Option
- - - Local supply

SPECIFICATIONS OF CI-68

Display

10.4" TFT color LCD, 640 x 480 pixels
 Contents: Ship's speed, Course, Drift angle, Tide (5 layers),
 Tide differential (2 layers), Setting depth, Heading,
 Position, Echo level, Water temperature
 Display mode: Tide vector, Graph, Course plot, Ship's speed,
 Text, Echo monitor

System frequency

244 kHz

Tracking mode

Ground tracking, Water tracking, Nav-aid, Automatic, External

Ship's Speed

Measurement range: -10.0 to 30 kt (Fore-aft)
 -9.9 to +9.9 kt (Port-starboard)
 Accuracy: Within $\pm 1\%$ or 0.1 kn
 Direction: All directions (360°) in one-degree steps
 Measurement depth: 3-300 m (ground tracking mode), Actual
 depth depends on installation method and
 underwater conditions.

Tide

Speed: 0.0 to 9.9 kt
 Accuracy: Within 0.2 kn
 Direction: All directions (360°) in one-degree steps
 Number of layers: 5 layers
 Measurement range: 2-150 m, Up to about 75% of depth.
 (Over 22 m of water depth is required in Ground
 tracking mode. Over 40 m water depth is required
 in Water Tracking mode)
 Other functions: Bottom tide tracking, Alarm output,
 Interference rejecter, Demonstration mode
 Adjustment: Ship's speed, Tide, Installation angle (bearing,
 trim, heel), Course error, Draft, External KP

Interface (NMEA 0183 Ver. 1.5/2.0/3.0, IEC 61162)

Input: DBT, DPT, GGA, GLL, HDT, HDM, HDG, MTW, RMA
 RMC, VTG, ZDA
 Output: CUR, VBW, VDR, VHW, VLW, VTG

ENVIRONMENT (IEC 60945 test method)

Temperature Transducer: -5°C to $+35^{\circ}\text{C}$
 Other Unit: -15°C to $+55^{\circ}\text{C}$
 Degree of protection Transceiver/Monitor unit: IPX0
 Control unit: IPX2 (panel), IPX0 (chassis)
 Junction box: IPX4
 Transducer: IPX8

POWER SUPPLY

Transceiver unit: 100/240 VAC, 3-1.5 A

EQUIPMENT LIST

Standard

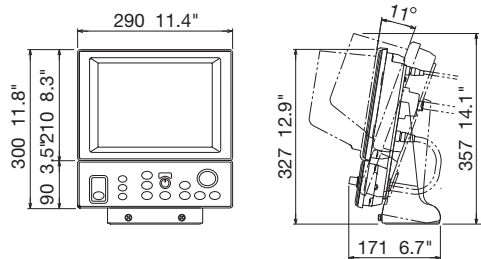
- | | |
|---|--------|
| 1. Control or Control/Monitor Unit CI-6888/MU-100C | 1 set |
| 2. Transceiver Unit CI-6810 | 1 unit |
| 3. Transducer CI-620-1-68 with 10 m cable or CI-620-2-68 with 20 m cable (Specify when ordering) | 1 unit |
| 4. Transducer Casing CI-620-T-F | 1 unit |
| 5. Through-Hull Pipe CI-620-K-S | 1 unit |
| 6. Installation materials and spare parts | 1 set |

Option

- | | |
|--|-------|
| 1. Junction Box CI-630 | 1 set |
| 2. DC-AC Inverter TR-2451 | 1 set |
| 3. Transducer Casing CI-620-T-S (for steel ship) | 1 set |
| 4. Through-Hull Pipe CI-620-K-S (for steel ship) | 1 set |
| 5. Cable for Transceiver - Junction box Z-6FVNV-SX-C 3P+1P, 5/10/15/20/30 m | |
| 6. Cable for Display - Control Unit 66S1239, 5/10 m | |

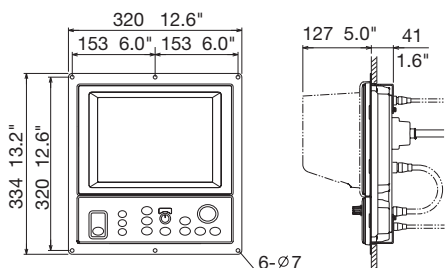
Display/Control Unit

MU-100C/CI-6888-5E 5.7 kg, 12.6 lb



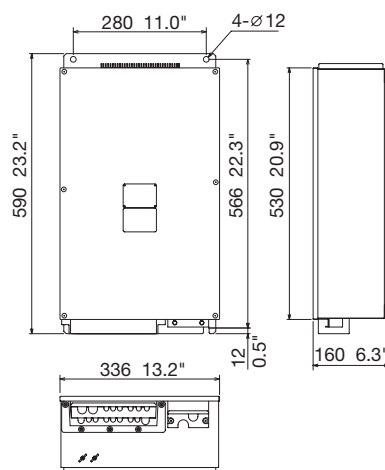
Flush Mount type

4.2 kg, 9.3 lb



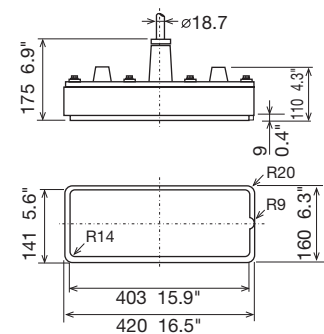
Transceiver Unit

CI-6810 17.0 kg, 37.5 lb



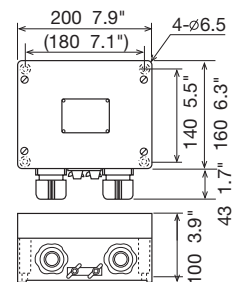
Transducer

CI-620-1-68 with 10 m cable 21 kg, 46.3 lb
CI-620-2-68 with 20 m cable 26 kg, 57.3 lb



Junction Box

CI-630 2.0 kg, 4.4 lb



Beware of similar products

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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