



FURUNO®

Revolutionary heading sensor with advanced GPS technology

SATELLITE COMPASS

Model **SC-50**

**Now available with
Separated Antenna System!!**



The future today with FURUNO's electronics technology.
FURUNO ELECTRIC CO., LTD.

Catalogue No. N-862b

TRADE MARK REGISTERED
MARCA REGISTRADA

www.honeywell-indonesia.com
www.marinemaju.com



Marine Maju Mandiri Official Store

LTC-Glodok Lt. 1 Blok B17 No. 1-3
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Jakarta Barat, DKI Jakarta, Indonesia



FURUNO's advanced GPS technology ensures highly accurate heading data for AIS, ECDIS, Radar/ARPA, Autopilots and more.



Compass Rose Mode

- Heading accuracy $\pm 1.0^\circ$ complying with IMO MSC.116(73) as a THD (Transmitting Heading Device)*
*Radome and open antenna type
- Excellent follow-up rate of $45^\circ/\text{s}$ exceeding requirements for high speed craft ($20^\circ/\text{s}$)
- Pitch and roll output in both analog and digital formats for ship's motion correction on FCV-30 and CH-250/270/300
- Tri-antenna system reduces the effect of pitching, rolling and yawing
- Free from regular maintenance
- Accurate SOG, COG, ROT, and L/L
- High speed heading data output in IEC 61162-2 format (38.4 kbps)
- Output in IEC 61162-1/2 or FURUNO AD-10 formats is available:
up to 10 ports in IEC 61162-1/2 or up to 5 ports in AD-10 or combination of IEC 61162-1/2 and AD-10 formats
- Individual setting of output sentences and baud rate in each port for flexible interface with external equipment
- Clear 4.5" silver bright LCD

Antenna selection

SC-50 has three types of antenna to suit any boating style

Open antenna



Accuracy

$\pm 1.0^\circ$

Designed to achieve good performance under heavy snowfall

Radome antenna



$\pm 1.0^\circ$

Suitable for a wide variety of vessels

Separate antenna



$\pm 1.0^\circ$
(at 50 cm base line length*)

Allows flexible installation any place onboard

*These antennas must be installed so that the base line length is set within 50 to 500 cm.

* Base line length: Length between a pair of GPS antennas, which are installed along ship's fore-and-aft line.



The SC-50 is a satellite compass that uses FURUNO's advanced GPS technology. The satellite compass can be used for a wide range of applications for any type of vessel. Radar/ARPA, AIS, ECDIS, scanning sonar and autopilots can utilize the functions of this compass. As the SC-50 uses GPS carrier frequency to determine heading, the performance is not affected by ship's speed, latitude, geomagnetism, etc. Settling time is near instantaneous and the follow-up performance is excellent, achieving 45°/s (SOLAS HSC Code requires 20°/s as a minimum).

The satellite compass delivers GPS positioning, SOG (Speed Over Ground), COG (Course Over Ground) and ROT (Rate of Turn). SOG accuracy is achieved by decoding the Doppler shift in the received satellite signals. The information can be output in IEC61162-2 format, at the high update rate up to 38.4 kbps to satisfy the high speed data-output requirements in special applications.

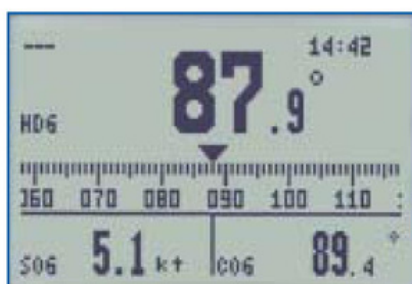
The roll and pitch angle is also output both in analog and digital formats to external equipment. For sonar or fish finders, the SC-50 offers stable echo pictures by compensating the transmitted/received beams even in rough seas. Thus, the satellite compass can also function as a highly accurate motion sensor.

The SC-50 has a unique Set and Drift mode. In this mode set and drift (tide direction and speed) are calculated by connecting with a water-tracking speed log, such as the DS-80. This display is useful to the radar operator manually entering set and drift, to get accurate sea-stabilized pictures.

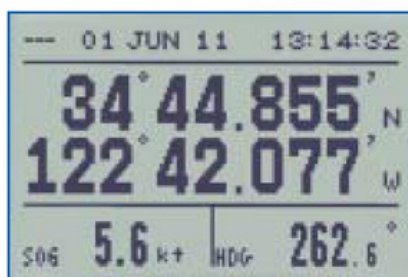
The SC-50 consists of an antenna, display and processor unit. The antenna is selectable from an open antenna featuring strong against snowfall, a stylish Radome antenna or separate antenna, installable anywhere onboard. Each accommodates three GPS antennas. The tri-antenna system helps reduce the influence of vessels' motions rather than dual-antenna system.



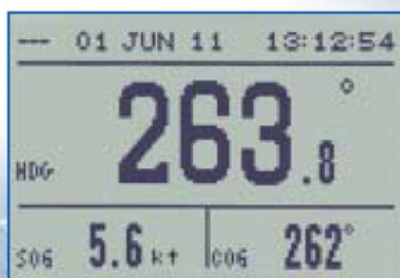
Processor Unit



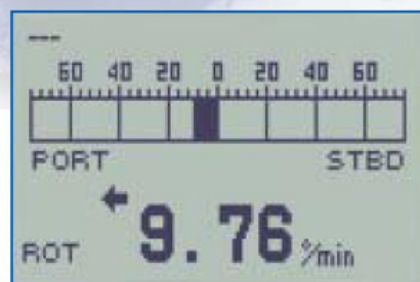
Steering Mode



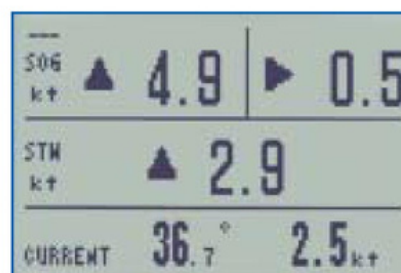
NAV Data Mode



Heading Mode



ROT Mode



Set & Drift Mode

(Current (Set and Drift) and Distance Run is selectable.)



SPECIFICATIONS OF SC-50

- 1. Accuracy**
 - Heading $\pm 1.0^\circ$ (95% static accuracy)
 - GPS Fix 10 m (95%)
 - DGPS Fix 5 m (95%)
 - WAAS Fix 3 m (95%)
- 2. Follow-up** 45°/s rate-of-turn
- 3. Settling Time**
 - Radome/Open 3 min
 - Separate 5 min
- 4. Interface**
 - Number of ports 10 ports*
 - 10 ports*: 5 ports in AD-10 or 10 ports in IEC 61162-1/-2
* can be utilized in menu selection AD-10 only
 - 1 port: Serial data sentence 25, 100, 200 ms, 1, 2 s data rate:
HDT, HDM(Heading), ROT(Rate of turn) ATT(Pitch and Roll)
1, 2 s data rate: VHW(Heading), VTG, VBW(SOG), GGA, GLL, GNS(L/L), ZDA(UTC), VDR(Set and Drift)
 - Log output 1 port: 200/400 p/nm (closure)
 - Alarm output 1 port: Alarm signal (closure signal)
 - Heading input 1 port: Backup Heading (AD-10/IEC 61162-1)
HDT, HDG, HDM, VBW, VHW, VLW
1 port: RTCM SC-104 format
- 5. Receiver Type** Twelve discrete channels.
C/A code, all-in-view
- 6. Receive Freq** L1 (1575.42 MHz)
- 7. Display Unit** 4.5" monochrome LCD,
95 (W) x 60 (H)mm, 120 x 64 pixels
- 8. Display Mode** Steering, Nav Data, Compass Rose, ROT, Heading and Set and Drift modes

POWER SUPPLY 12-24 VDC, 15 W

ENVIRONMENTAL

IEC 60945 for EMC, Vibration, Temperature

EQUIPMENT LIST

Standard

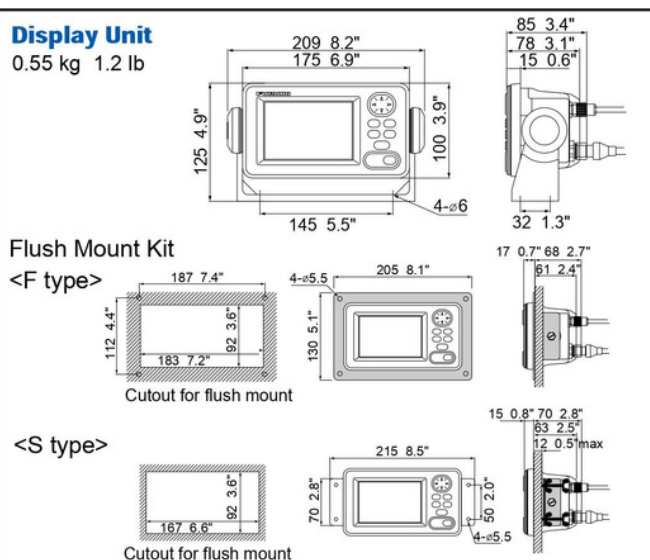
- | | |
|---|--------|
| 1. Display Unit SC-502 | 1 unit |
| 2. Antenna Unit (Specify when ordering) | |
| SC-303 or SC-603 with 15 m cable | 1 unit |
| GSC-001 with 15 m cable | 3 unit |
| 3. Processor Unit SC-501 | 1 unit |

Option

- | |
|--|
| 1. Antenna Cable, 30 m CP20-01700, 50 m CP20-01710 |
| 2. Flush Mount Kit S type CP20-17, F type CP20-29 |

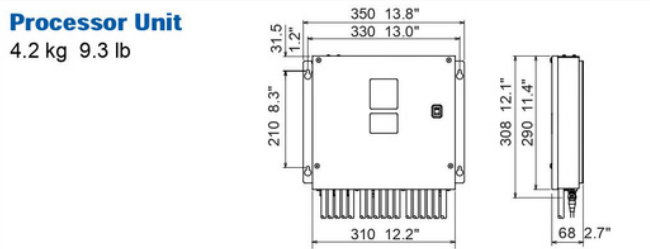
Display Unit

0.55 kg 1.2 lb



Processor Unit

4.2 kg 9.3 lb



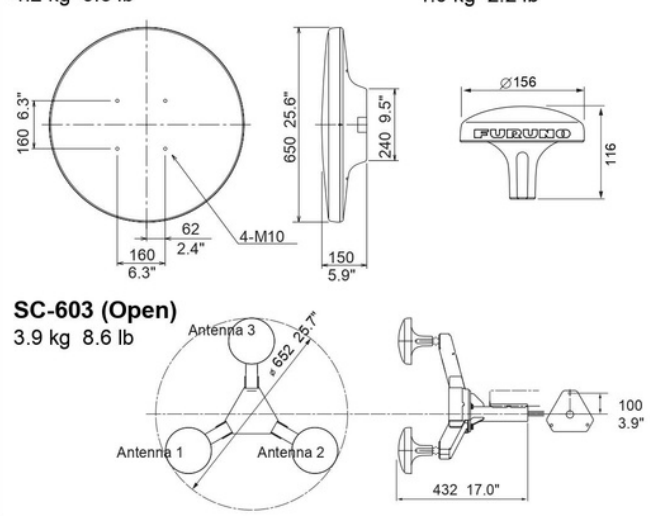
Antenna Unit

SC-303 (Radome)

4.2 kg 9.3 lb

GSC-001 (Separate)

1.0 kg 2.2 lb



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Interconnection Diagram

