

**FURUNO**

SATELLITE COMPASS™

Model **SC-33**



Satellite Accuracy  
Unwavering Heading



More details on  
[www.furuno.com](http://www.furuno.com)



# The sensor that senses your

- ▶ Heading Accuracy of 0.4°
- ▶ 3-AXIS speed monitoring
- ▶ NMEA2000 certified
- ▶ NavNet TZtouch, NavNet TZtouch2 Series compatible
- ▶ Multi-GNSS with GPS, Galileo, GLONASS, QZSS satellite network
- ▶ Strong against multipath, High Reliability
- ▶ Works perfectly with TIMEZERO software
- ▶ Free from regular maintenance

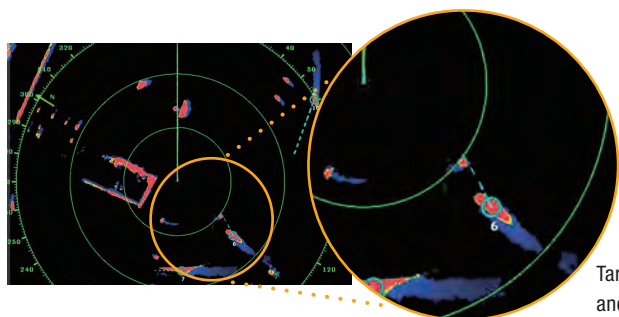
## Perfect heading sensor for Radars, TT, AIS, Sonars, Autopilots

### A wide variety of navigation information, with the highest reliability

Provides GNSS position (GPS, Galileo, GLONASS and QZSS), SOG (Speed Over Ground), COG (Course Over Ground), ROT (Rate Of Turn) as well as Heaving, Roll & Pitch, and naturally Heading. The SC-33 has also been designed to effectively counter multipath errors in order to reach the highest level of reliability.

#### Perfect for Radars (Target Tracking (TT), True Echo trail)

The latest available functions such as Target Tracking and True Echo trail can be activated when the SC-33 heading sensor is connected to a Radar supporting both functions.



Target Tracking and Echo Trail

#### Perfect for AIS

The SC-33 provides any AIS receiver with the most accurate heading and positioning data to ensure the safest navigation.



AIS

#### Perfect for Sonars

For Sonars without stabilizers, the SC-33 can provide Pitch and Roll Compensation so the detection remains stable.

# needs



Model **SC-33**



## NMEA expandability

SC-33 has been designed to be the perfect heading sensor for your MFD, such as NavNet TZtouch and TZtouch2 series, and any other Navigation instruments using both the **NMEA2000/CAN bus** and the **NMEA0183\*** network interface.

\* Optional NMEA interface unit IF-NMEASC/IF-NMEA2K2 required



NavNet Series **CAN bus**



Autopilots & Instruments **CAN bus**



NAVpilot-300/711C



FI-70

NavNet TZT2\*, NavNet TZT2BB\*, NavNet TZT

\* SC-33 advanced settings available on NavNet TZTL12F,15F and TZT2BB V6.01 or later

**CAN bus**  
&  
**NMEA0183**

### Radars

- DRS6A/12A/25A-X class
- DRS4D/6A-NXT class

### Sonars

- CH-500/600
- FSV-25/35/85

### AIS

- FA-170
- FA-50
- FA-30

### Current indicator

- CI-68
- CI-88

### Autopilots

- NAVpilot-300
- NAVpilot-711C

\* Non-exhaustive list

# SPECIFICATIONS OF Model SC-33

## GENERAL

Frequency	L1 1575.42 MHz (GPS/Galileo/QZSS), 1602.5625 MHz (GLONASS)
Tracking code	C/A (GPS/QZSS), E1B (Galileo), 10F (GLONASS)
Attitude accuracy	Heading/Roll/Pitch: 0.4° rms
Follow-up	45°/s
Heave accuracy	30 cm
Attitude fixing time	90 s approx.
Position accuracy	GNSS: 5 m approx. (2 drms, HDOP<4) SBAS: 4 m approx. (2 drms, HDOP<4) WAAS: 3 m approx. (2 drms, HDOP<4)
Position fixing time	60 s approx.
Update interval	Attitude: 50 Hz max, Position: 10 Hz max.
Ship's speed accuracy	
Number of satellite>5	0.2% of ship's speed or 0.02 kn rms, whichever is greater
Number of satellite 3to4	1% of ship's speed or 0.1 kn rms, whichever is greater
Pressure sensor	
Measuring range	850 to 110 hPa (ambient temperature: 0 to +50°C)
Accuracy	±1.0 hPa (adjusted value after offset regulation)

## INTERFACE

Port	NMEA2000: 1 port
Input	059392/904, 060160/416/928, 061184, 065240, 126208
Output	059392, 060928, 061184, 065280, 126208/464/992/993/ 996/998, 127250/251/252/257/258, 129025/026/029/ 033/538/539/540/547, 130310/312/314/316/577/578/ 816/817/818/819/820/822/823/826, 130833/834/842/ 843/845/846/847

**POWER SUPPLY** 12-24 VDC: 0.4-0.2 A (LEN: 11 @9 VDC)

## ENVIRONMENTAL CONDITIONS

Ambient temperature	-25°C to +55°C (storage: -30°C to -70°C)
Relative humidity	95% or less at +40°C
Degree of protection	IP56

## EQUIPMENT LIST

### Standard

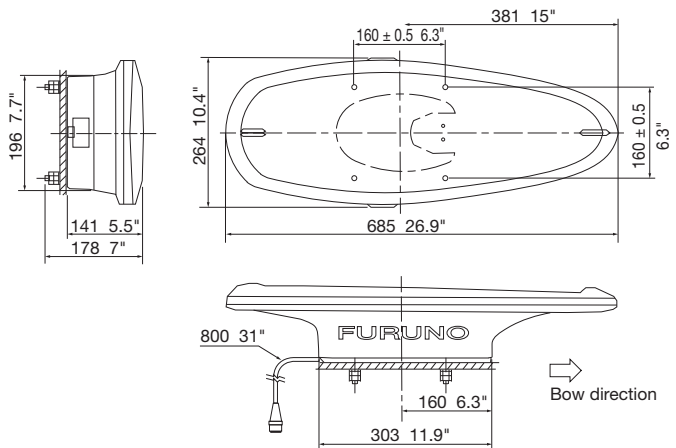
Sensor Unit	SC-33
Cable Assembly	FRU-NMEA-PMMFF cable (6 m) for NavNet Series. (Selectable) or FRU-NMEA-NFF cable (15 m) for IF-NMEAASC
Installation Materials	

### Optional Supply

Interface Unit	IF-NMEAASC/IF-NMEA2K2
Cable Assembly	FRU-NMEA-NFF 15/30 m
Bird-Repellent Fixture	
Others	

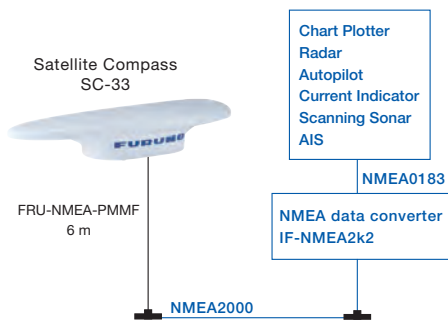
### Sensor Unit

SC-33  
2.8 kg 6.17 lb

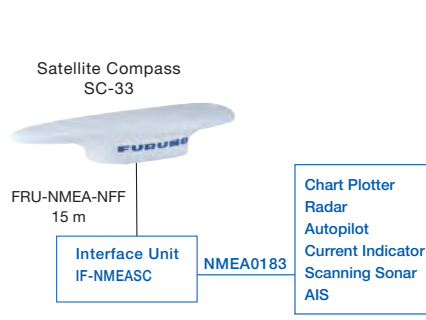


## INTERCONNECTION DIAGRAM

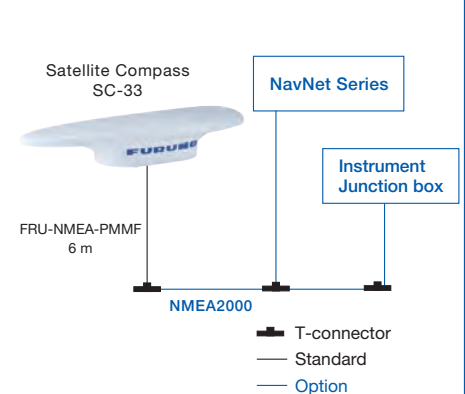
### NMEA0183 connection with the IF-NMEA2K2



### NMEA0183 connection with the IF-NMEAASC



### NMEA2000 Network



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