

FURUNO INSTALLATION GUIDE

ANALOG NMEA DATA CONVERTER Model IF-NMEA-FI

NMEA2000
Certified

The purpose of this guide is to provide the installation and wiring of the Analog NMEA Data Converter IF-NMEA-FI.

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Safety & Mounting Instructions

WARNING



Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.



Do not install the equipment where it may be subjected to rain or water splash.

Water in the unit can result in fire, electrical shock or damage the equipment.



Immediately turn off the power at the switch board if the equipment is emitting or smoke or fire.

Continued use can cause fatal damage the equipment.

CAUTION



Observe the compass safe distances shown below to prevent interference to a magnetic compass.

Standard compass	Steering compass
0.30 m	0.30 m



Keep the equipment out of direct sunlight because of heat that can build up inside the cabinet.



Install the equipment away from areas subject to water splash and rain.

Cable terminals for the external sensor are not waterproof.

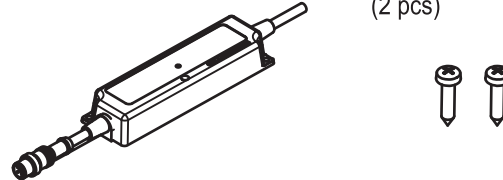


Make the maintenance space shown in the outline drawing for maintenance and checking.

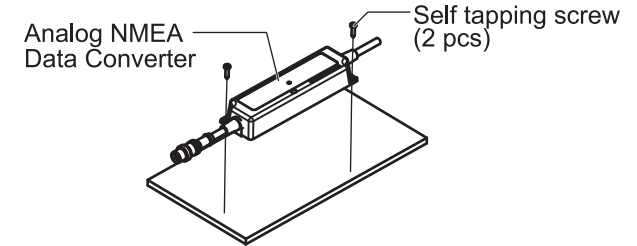
Installation

Package contents

- Analog NMEA Data Converter
- Self-tapping screw (2 pcs)

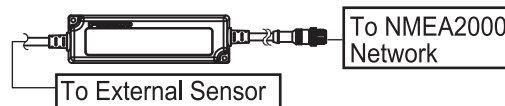


Fix the unit with two self-tapping screws (Ø3×20, supplied).



Wiring

This unit converts analog data from an external sensor to the NMEA2000 format data. Any one of the external sensors shown in the table is available for this unit. To connect with a sensor other than the FI-5001/L, change the setting of this unit from the instrument FI-70. For how to change the setting, see the operator's manual of the FI-70.



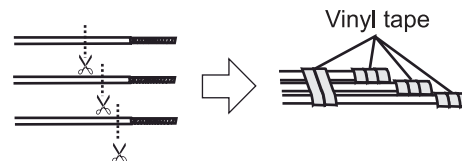
External Sensor	Converted PGN	Sending Cycle
Tank Gauge (resistance: 0 - 300 Ω)	127505 Fluid Level	2500 ms
Wind Transducer (FI-5001 or FI-5001L)	130306 Wind Data	100 ms
Speed/Temp Sensor (ST-02PSB or ST-02MSB)	128259 Speed, Through Water	1000 ms
	130310 Environmental Parameters*	500 ms
	130311 Environmental Parameters*	500 ms
	130312 Temperature*	2000 ms
	130316 Temperature, Extended Data*	2000 ms

*: Used for the water temperature data.

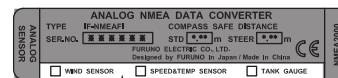
How to connect with an external sensor

See the interconnection diagram at the back of this guide, connect the external sensor to this unit.

Cut the unused cores and wind vinyl tape around the each edge of the wires. Then, fix them so that they do not touch other signal cores or ground.



After the connection, check the applicable checkbox on the name plate of this unit according to the external sensor connected to this unit.

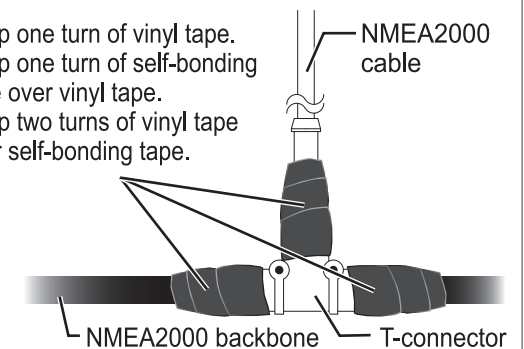


Check the applicable checkbox.

How to connect with NMEA2000 Network

Connect the NMEA2000 cable of this unit to the NMEA2000 network backbone. After the connection, wrap the connector with self-bonding tape and vinyl tape.

1. Wrap one turn of vinyl tape.
2. Wrap one turn of self-bonding tape over vinyl tape.
3. Wrap two turns of vinyl tape over self-bonding tape.



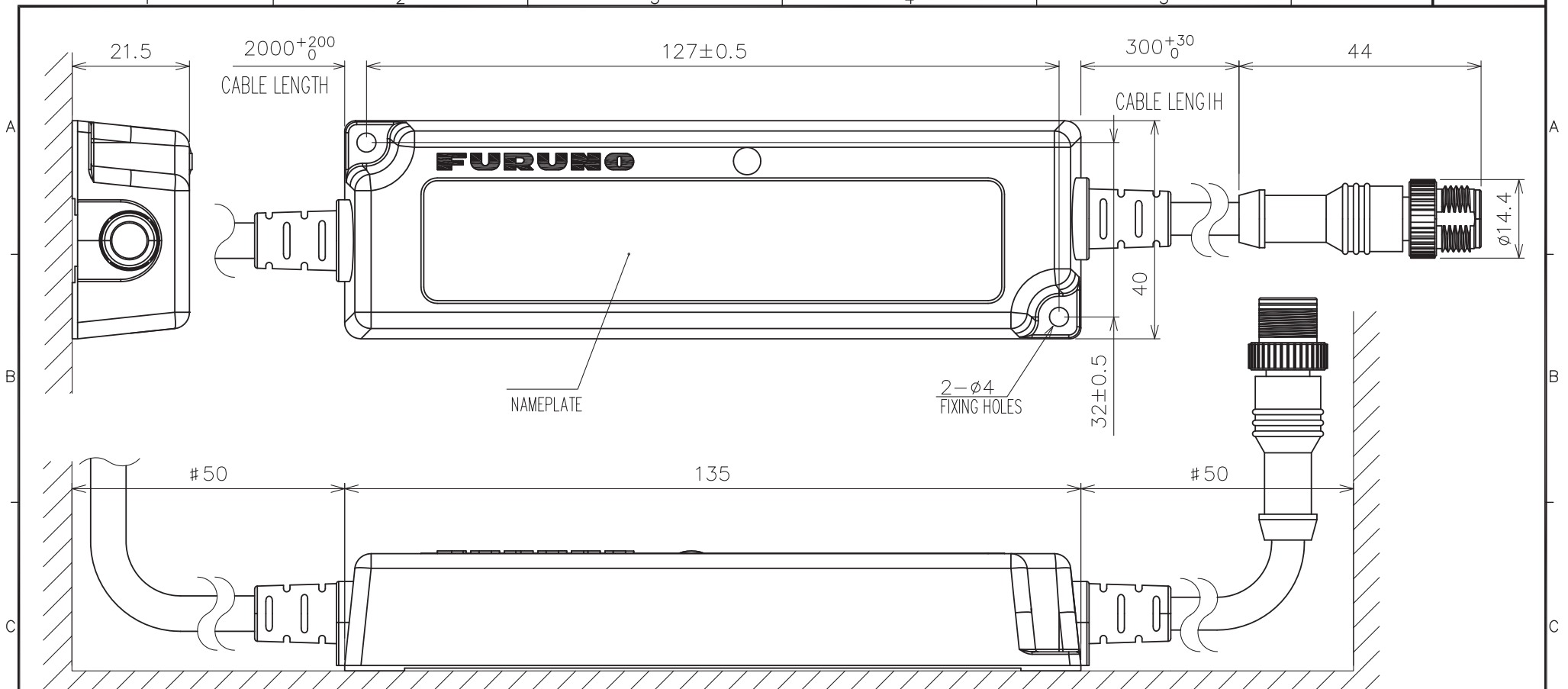


TABLE 1

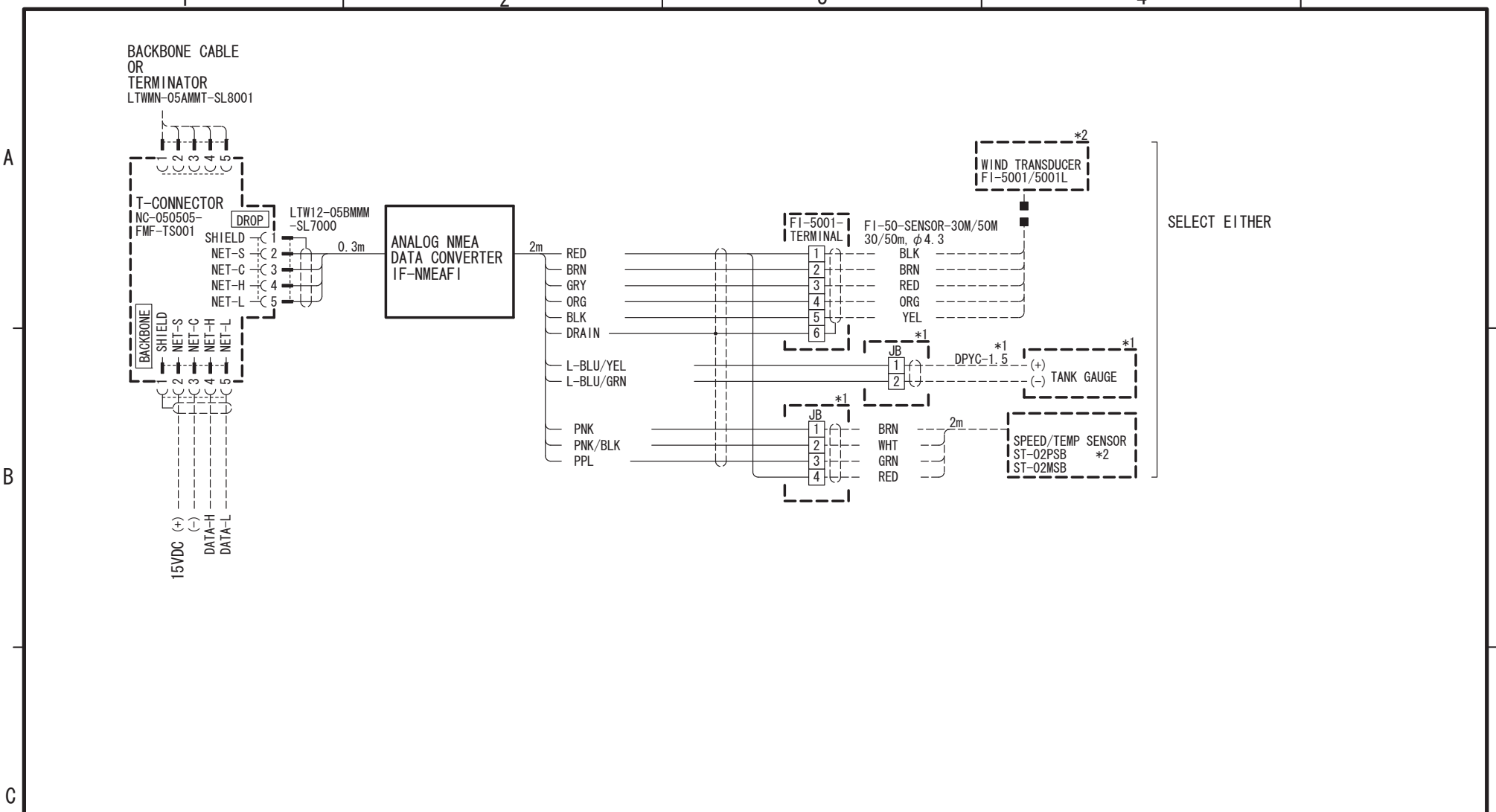
(mm) DIMENSION	(mm) TOLERANCE
L ≤ 50	±1.5
50 < L ≤ 100	±2.5
100 < L ≤ 500	±3

NOTE

- TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
- #: MINIMUM SERVICE CLEARANCE.
- USE TAPPING SCREWS $\phi 3 \times 20$ FOR FIXING THE UNIT.

DRAWN	19/Aug/2014 T.YAMASAKI	TITLE	IF-NMEAFI
CHECKED	19/Aug/2014 H.MAKI		
APPROVED	20/Aug/2014 H.MAKI	FI-70	
SCALE	1/1	MASS	0.35 ±10% kg
DWG.No.	C7281-G02-A	REF.No.	26-008-101G-1
		MASS INCLUDES CONNECTOR AND CABLES.	NAME
			ANALOG NMEA DATA CONVERTER
			OUTLINE DRAWING

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NOTE

- *1: THE SHIPYARD SUPPLY.
- *2: OPTION.

DRAWN	20/Aug/2014 T.YAMASAKI		
CHECKED	20/Aug/2014 H.MAKI		
APPROVED	30/Sep/2014 H.MAKI		
SCALE		MASS	kg
DWG.No.	C7281-C02-A	REF.No.	
		NAME	ANALOG NMEA DATA CONVERTER
			INTERCONNECTION DIAGRAM

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