

SPECIFICATIONS OF NAVIGATIONAL ECHO SOUNDER FE-800

1 TRANSCEIVER UNIT

- 1.1 Transmit frequency 50 kHz, 200 kHz or alternating transmit among these frequencies
- 1.2 Output power 1 kWrms
- 1.3 Minimum range 2 m (50 kHz), 1 m (200 kHz)
- 1.4 Accuracy 0.5 m at 20 m range, 5 m at 200 m range, or 2.5% of depth range
- 1.5 Basic display range

Unit	Range							
	1	2	3	4	5	6	7	8
Meter	5	10	20	40	100	200	400	800
Feet	15	30	60	120	300	600	1500	2500

- 1.6 Roll/pitch tolerance Rolling: $\pm 10^\circ$, Pitching: $\pm 5^\circ$
- 1.7 Data recording period 24 hours at 5 second intervals, 1 hour at 1 second intervals
- 1.8 Recording data display 24 hours at 2 minute intervals,
12 hours at 1 minute intervals,
1 hour at 5 second intervals
- 1.9 Display mode “NAV”: Basic echo presentation with the depth below transducer,
keel or sea surface
“HISTORY”: Historical presentation with the depth
“OS data”: Echo presentation with the pop-up table of present
navigational data; L/L, course, speed, time, depth
Dual-frequency display
- 1.10 Auto-mode Range, Gain
- 1.11 Picture advance speed 15 minutes (200 m range) or more
- 1.12 Alarm Shallow depth

2 DISPLAY UNIT

- 2.1 Display 8.4-inch color LCD, 640x480 (VGA) , 0.267 mm/dot
- 2.2 Picture color Echo: 8 colors, Character and ground: 3 colors
- 2.3 Interface RS-232C: 1 port (for printer)
- 2.4 Visible distance
Depth 3.8 m
Others 0.9 m nominal

3 INTERFACE

- 3.1 Number of ports
IEC61162-1 Input: 2, Output: 4
IEC61162-450 I/O: 1 (Ethernet 100base-TX, RJ45 connector),
Transmission group
IN: MISC, NAVD, OUT: Arbitrary (default: NAVD)
IEEE802.3 data link
Contact closure Output: 1

3.2 Data sentences (IEC61162)

Input ACK, ACN, DDC*³, GGA, GLL, HBT, RMA, RMC, VTG, ZDA
 Output ALC, ALF, ALR, ARC, DBK*¹, DBS*¹, DBT*², DDC*³, DPT, HBT

*¹: Not SOLAS compliant. *²: Available when the transducer face is same level as keel.

*³: Available when [Dimmer Control] is set to 'ON'.

3.3 Output proprietary sentence

PFEC msi (mandatory, for multiple transducer installation)

3.4 Alarm output Contact closure, Normal open/close (24 VDC/ 2 A)

4 POWER SUPPLY

4.1 Transceiver unit 100-230 VAC: 0.7-0.4 A, 1 phase, 50-60 Hz

4.2 Display unit 24 VDC, 0.4 A (supplied from transceiver unit)

4.3 Printer (option) 12-24 VDC: 1.3 A max. (for printing)

5 ENVIRONMENTAL CONDITIONS

5.1 Ambient temperature -15°C to +55°C

5.2 Relative humidity 93% or less at +40°C

5.3 Degree of protection

Transceiver unit IP22: Bulkhead mount, IP20: Tabletop mount

Display unit IP22

Matching box IP45

5.4 Vibration IEC 60945 Ed.4

6 UNIT COLOR

6.1 Transceiver unit N2.5

6.2 Display unit N2.5