

**SPECIFICATIONS OF MARINE RADAR
FR-10**

1 GENERAL

1.1 Range scale, Ring interval (RI) and Number of rings

Range (NM)	0.0625	0.125	0.25	0.5	0.75	1	1.5	2	3	4	6	8	12
RI (NM)	0.0125	0.025	0.05	0.1	0.25	0.25	0.25	0.5	0.5	1	1	2	3
Rings	5	5	5	5	3	4	6	4	6	4	6	4	4

16	24	32	36	48	64	72	96
4	6	8	6	8	16	12	16
4	4	4	6	6	4	6	6

- 1.2 Screen size 10.4-inch color LCD, portrait type, 800 x 600 (SVGA)
- 1.3 Effective radar diameter 158 mm nominal
- 1.4 Brilliance 400 cd/m² typical
- 1.5 Display mode Head-up, Course-up, North-up, True motion, Stern-up
- 1.6 Marks Heading line, Bearing scale, Range ring, Tuning indicator, Cursor, North mark, Variable range marker (VRM), Electric bearing line (EBL), Target alarm zone, Zoom window
- 1.7 Language Burmese, Chinese, Danish, English (US/UK), French, German, Indonesian, Italian, Japanese, Korean, Malaysian, Norwegian, Russian, Spanish, Swedish, Thai, Vietnamese

2 INTERFACE

2.1 Number of ports

- Serial 3 ports: NMEA0183 V1.5/2.0/4.0/4.1, 4800/38400 bps
- Contact closure 1 port, for external buzzer or operator fitness
- NMEA2000 1 port
- LAN 1 port, Ethernet, 100Base-TX, RJ45
- Video output 1 port, HDMI (SVGA)
- USB 1 port, USB2.0 for USB mouse or flash memory (File system: FAT32)

2.2 Data sentences

- Input BWC, BWR, GGA, GLL, GNS, HDG, HDM, HDT, RMB, RMC, THS, TTM, VDM, VDO, VHW, VTG, ZDA
- Output RSD, TLL, TTM

2.3 NMEA2000 PGN

- Input 059392/904, 060160/416/928, 061184, 065240, 126208/720/992/996, 127250/258, 128259, 129025/026/029/033/538, 130577/816/818/822
- Output 059392/904, 060160/416/928, 061184, 126208/464/720/993/996

3 POWER SUPPLY

- 3.1 Display unit 12-24 VDC: 1.1-0.6 A
- 3.2 Rectifier (option) PR-62 100/110/115/220/230 VAC, 1 phase, 50/60Hz

4 ENVIRONMENTAL CONDITIONS

- 4.1 Ambient temperature -15°C to +55°C (storage: -30°C to +70°C)
- 4.2 Relative humidity 93% or less at +40°C
- 4.3 Degree of protection IP55 (front panel), IP22 (rear panel)
- 4.4 Vibration IEC 60945 Ed.4

5 UNIT COLOR

N1.0