

**SPECIFICATIONS OF MARINE RADAR  
MODEL 1715**

**1 GENERAL**

- 1.1 Indication System PPI daylight display, raster scan, 4 tones in monochrome
- 1.2 Range (shown: nm), Pulselength (PL) & Pulse Repetition Rate (PRR)

Range	0.125, 0.25, 0.5, 0.75	1, 1.5, 2	3, 4, 6, 8, 12, 16, 24, 36
Pulse Length	0.08 μs (short)	0.3 μs (medium)	0.8 μs (long)
Pulse Repetition Rate	3000 Hz nominal	1200 Hz nominal	600 Hz nominal

- 1.3 Range Resolution 18 m
- 1.4 Bearing Discrimination 5.2°
- 1.5 Minimum Range 30 m
- 1.6 Bearing Accuracy Within 1°
- 1.7 Range Ring Accuracy 1.0 % of range or 8 m, whichever is the greater

**2 ANTENNA UNIT**

- 2.1 Radiator Micro-strip
- 2.2 Polarization Horizontal
- 2.3 Antenna Rotation Speed 24/31/41 rpm nominal (auto-select according to range)
- 2.4 Radiator Length 45 cm
- 2.5 Horizontal Beamwidth 5.2° typical
- 2.6 Vertical Beamwidth 25°
- 2.7 Sidelobe Attenuation Less than -20 dB

**3 TRANSCEIVER MODULE**

- 3.1 Frequency 9410 MHz ±30MHz (X-band)
- 3.2 Modulation P0N
- 3.3 Peak Output Power 2.2 kW
- 3.4 Modulator FET Switching Method
- 3.5 Intermediate Frequency 60 MHz
- 3.6 Tuning Automatic
- 3.7 Receiver Front End MIC (Microwave IC)
- 3.8 Bandwidth 15 MHz (short pulse), 5 MHz (medium/long pulse)
- 3.9 Duplexer Circulator with diode limiter
- 3.10 Warm-up Time 1-min. approx.

**4 DISPLAY UNIT**

- 4.1 Picture Tube 7" rectangular monochrome LCD
- 4.2 Display Pixels 240(H) x 320(V) dots,  
Effective radar display area: 240x240 dots
- 4.3 Range, Range Interval, Number of Rings

Range (nm/km)	0.125	0.25	0.5	0.75	1	1.5	2	3	4	6	8	12	16	24	36
Ring Interval	0.0625	0.125	0.125	0.25	0.25	0.5	0.5	1	1	2	2	3	4	6	12
Number of Rings	2	2	4	3	4	3	4	3	4	3	4	4	4	4	3

Range unit: nm/sm/km selectable, 0.125: nm/sm only, 36: km only

- 4.4 Markers Heading Line, Bearing Scale, Range Rings, Variable Range Marker (VRM), Electronic Bearing Line (EBL), Cursor, Alarm Zone, Waypoint Mark\*
- 4.5 Alphanumeric Indications Range, Range Ring Interval, Interference Rejection (IR), Variable Range Marker (VRM), Electronic Bearing Line (EBL), Stand-by (ST-BY), Guard Alarm (G (IN), G (OUT), UP RANGE), Echo Stretch (ES), Range and Bearing to Cursor, Bearing or L/L Position, Echo Trail (TRAIL), Trail Time, Watchman (WATCH), Zoomed Display (ZOOM), Navigation Data\*, Heading\* \*: External data required
- 4.6 Input Sentences IEC 61162, NMEA 0183 (Ver1.5/2.0/3.0) GGA, RMC, RMA, RMB, GLL, VTG, VBW, VHW, HDT, HDG, HDM, BWR, BWC, GLC, GTD, DPT, DBK, DBS, DBT, MTW, ZDA, MWV, XTE
- 4.7 Output Sentences IEC 61162, NMEA 0183 (Ver3.0) TLL (by key operation)

## 5 ENVIRONMENTAL CONDITIONS

- 5.1 Ambient Temperature Antenna Unit: -25°C to +55°C, Display Unit: -15°C to +55°C
- 5.2 Relative Humidity 93% or less at +40°C
- 5.3 Waterproofing Antenna Unit: IPX6  
Display Unit: IPX5 (IPX0 when an external buzzer installed)
- 5.4 Bearing Vibration IEC 60945

## 6 POWER SUPPLY

12-24 VDC: 3.5-1.6 A

## 7 COATING COLOR

- 7.1 Display Unit N3.0
- 7.2 Antenna Unit Cover: N9.5, Bottom: 2.5PB 3.5/10

## 8 COMPASS SAFE DISTANCE

- 8.1 Display Unit Standard: 0.60 m Steering: 0.40 m
- 8.2 Antenna Unit Standard: 1.25 m Steering: 0.85 m