SeaBeacon 2

System 6 racon

SeaBeacon® 2 System 6, a frequency agile radar beacon (RACON), provides dependable service to all marine radars including those with modern narrow band receivers. SeaBeacon® 2 System 6 is unequaled in frequency matching accuracy, consistency pulse-by pulse response and advanced sidelobe suppression.

CHARACTERISTICS

- **GREATER OPERATIONAL RANGE**
  – SeaBeacon® 2 System 6 provides improvements in receiver dynamic range, receiver sensitivity, power consumption and transmitter power. Better receiver sensitivity and higher gain antennas give superior range performance with solid-state radars.
- **AVAILABLE WITH OR WITHOUT PRESSURISATION**
  – The GMU version of SeaBeacon® 2 System 6 is available with or without pressurisation. Pressurising racons with nitrogen provides added protection against the corrosive marine environment, seasonal variations in ambient temperature, pressure fluctuations, condensation and accidental submergence.
- **DUAL-TOKEN SIDELOBE SUPPRESSION**
  – Radars are identified accurately by measuring frequency and pulsewidth. Amplitude values are used to block responses to sidelobes.
- **USER SELECTIONS**
  – Operating parameters such as quiescent periods, trace length, active period, extended quiescent and standard response code (per IALA recommendations) can be programmed in the field using an optional hand-held keypad or laptop.
- **INTELLIGENT POWER MANAGEMENT**
  – Users may program quiescent and active time intervals to match performance and power consumption requirements. To further reduce power consumption, if no local radar is detected, the racon automatically returns to its quiescent state after a four second active period. Extended quiescent state for low traffic areas and seasonal inhibit further reduce power consumption. Periodic quiescent periods allow the radar operator to view the radar screen ensuring that no targets have been obscured by a racon response.
- **PROPORTIONAL SCALING**
  – Ensures length of racon trace appearing on the radar screen is generally uniform on all range settings.
- **MONITORING**
  – SeaBeacon® 2 System 6 racons can be linked, via Tideland's NavLink®, to a manned base station for remote monitor and control functions.
- **HAZARDOUS USE RATING**
  – Available for General Marine Use (GMU), NEC Class 1 Division 2 (not pressurized), IECEx/ATEX Category 2 (Zone 1) or ATEX Category 3 (Zone 2)for hazardous areas.
- **COMPLIANT TO**
  – IALA Recommendation R-101 on Marine Radar Beacons (RACONS) Edition 2 December 2004.

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Attribute	Details
Frequency of Operation: X-Band S-Band	9.3 to 9.5GHz 2.9 to 3.1GHz
Frequency Matching Accuracy – Long/Short Radar Pulses	± 1MHz
Output Power to Antenna	1.0W (30dBm)
Pulse width Response: Minimum Maximum	50 nanoseconds 2000 nanoseconds
RACON Response Length	4 – 80 microseconds
RACON Response Display Scaling Pulse width (±50 ns typical) 800 nanoseconds to 2000 nanoseconds 450 nanoseconds to 800 nanoseconds 215 nanoseconds to 450 nanoseconds 50 nanoseconds to 215 nanoseconds	 RACON Response (±5 µsec typical) Selected value 75% of selected value 50% of selected value 25% of selected value
System Sensitivity: X-Band S-Band	-50dBm -50dBm
Response Rate – Maximum (either band)	10KHz
Response Delay – Maximum (100 meters)	667 nanoseconds
Response Recovery Time – Maximum	20 microseconds
Response Code	AZ, 0-9, NW, NE, SW, SE
Radar Blanking	External blanking control ports available
Built-in System Test Monitor: Built-in External A External B	Audible Beeper Isolated Transistor Switch for Go/No Go RS-232C Communications Port for monitor, control and field programming features
Power Supply Input Voltage: GMU Ex	9 – 36 nominal 12VDC 18 – 32 nominal 24VDC
Lighting Protection – Surge Protection	1 millisecond at 3000 volts
Quiescent Power Consumption	0.24W
Nominal Power Consumption: Light Traffic Heavy Traffic	0.75W 1.0W
Quiescent Period	Programmable 0 to 60 seconds
Extended Quiescent	Programmable/Selectable
Active Period	Programmable 4 to 60 seconds
Seasonal Inhibit	Programmable/Selectable
X-Band: Gain Polarization Vertical Divergence Effective Radiated Power	6dBi Horizontal 22 degrees 4.0W
S-Band: Gain Polarization Vertical Divergence Effective Radiated Power	6dBi Horizontal 22 degrees 4.0W
S-Band Dual Polarization: Gain Polarization Vertical Divergence Effective Radiated Power	1dBi (Horizontal); 0dBi (Vertical) Horizontal and Vertical 22 degrees 1.0 to 1.3W
Certification Details	IECEx its 16.0007X ITS16ATEX18410X ITS21UKEX0391X Ex db eb pxb IIC T4 GB II2G
NOTE: Specifications are subject to change.	

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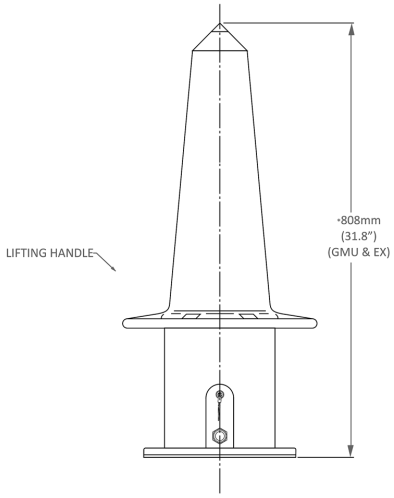

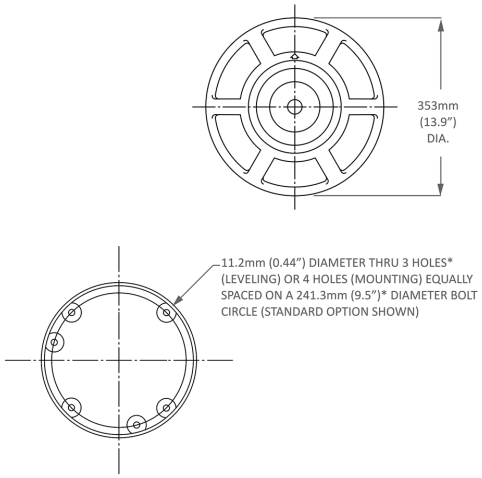

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