



e-NAVCON

Position Fixing and Identification System

SeaBeacon® 2 System 6, a frequency agile radar beacon (racon), has provided dependable service to all marine radars, including those with modern narrow band receivers. e-NAVCON combines the SeaBeacon® 2 System 6 with an in-built **AIS AtoN transponder** to provide the mariner with two forms of electronic signatures, one of which is independent of the GPS network increasing accuracy and redundancy.

THE e-NAVCON ADVANTAGE

- Combined AIS and Radar transponder in one package; no possibility of interference between different manufacturers equipment.
- No outside antenna cabling, eliminating potential connection problems.
- Single or dual power supply options providing additional redundancy.
- Designed and built in USA; your passport to reliability and customer service.

FEATURES

- **AIS message 21** - Provides vessels with an AIS message which will be displayed on their AIS display system.
- **Greater radar operational range** – e-NAVCON provides improvements in receiver dynamic range, receiver sensitivity, power consumption and transmitter power.
- **Available with or without pressurisation** - e-NAVCON is available with or without pressurisation. Pressurising racons with nitrogen provides added protection against the corrosive marine environment. Only racons with exceptional sealing capability are capable of offering this feature.
- **Proportional scaling** - Ensures length of racon trace appearing on the radar screen is generally uniform on all range settings.
- **PATENT** pending.



SPECIFICATIONS

RACON		
Frequency of Operation		9.3 to 9.5GHz
Frequency Matching Accuracy		± 2MHz
Output Power to Antenna		>0.5W
Pulsewidth Response		
Minimum		50 nanoseconds
Maximum		2000 nanoseconds
Racon Response Display Scaling		Racon Response (±5 µsec typical)
System Sensitivity		
X-Band		Better than -50 dBm
Response Rate - Maximum		10KHz
Response Delay - Maximum (100 metres)		667 nanoseconds
Radar Blanking		External blanking control ports available
System Test Monitor		
Built-in		Audible Beeper
External A		Transistor Switch for Go/No Go
External B		RS-232C Communications Port for monitor, control and field programming features
Quiescent Period		Programmable 0 to 60 seconds
Extended Quiescent		Programmable selectable
Active Period		Programmable 4 to 60 seconds
X-Band Antenna Specifications		
Gain		6dBi
Polarisation		Horizontal
Vertical Divergence		22 degrees
Effective Radiated Power		>2.25W
AIS		
Transmit Frequency Range		156.025MHz - 162.025MHz
Transmit Power (selectable)		2, 5 and 12W
GPS Receiver Channels		50
GPS sensitivity		Better than -159 dBm
Transmit Power (selectable)		2, 5 and 12W
VHF and GPS Antenna Standards		Internal IALA A-126 Ed. 1.4 ITU-R M 1371-4-R
MESSAGE 21 CONTENT		
MMSI Number	Name of AtoN	Position
Position Accuracy	RAIM Indicator	Type of Position Fixing
Device Time Stamp	Dimension of AtoN	Type of AtoN
Virtual AtoN Target Flag	8 bits reserved for regional application	
Power Supply Input Voltage		9.0 to 15.6VDC
Lighting Protection - Surge Protection		1 millisecond at 3000 volts
Quiescent Power Consumption		0.3W
Nominal Power Consumption		
Light Traffic		1.0W
Heavy Traffic		1.3W
Submersion Capability – Maximum Depth (Pressurised)		10 metres (35 feet)
Positive pressurisation		Available with or without
Dimensions		
Diameter (including lift ring)		353mm (13.9in)
Height		807mm (31.8in)
Weight (includes 4.5 metre external cable and all stainless steel mounting hardware) – GMU		13.6kg (30lbs)
Base Housing		Aluminium
Temperature Range		-40° C to +70° C

NOTE: Specifications are subject to change.

e-NAVCON

**PATENT PENDING, A
WORLD FIRST. RACON
AND AIS COMBINED**

DIMENSIONS AND MOUNTING DETAIL

USA - HOUSTON P: + 1 713 681 6101 F: + 1 713 681 6233 E: us-sales@tidelandsignal.com	UK - BURGESS HILL P: + 44 (0) 1444 872240 F: + 44 (0) 1444 872241 E: emea-sales@tidelandsignal.com	UAE - DUBAI P: + 971 (0) 4 885 5842 F: + 971 (0) 4 885 7352 E: emea-sales@tidelandsignal.com	CHINA P: + 86 (0) 158 0223 7983 (primary) P: + 86 (0) 138 0101 4639 E: asia-sales@tidelandsignal.com
CANADA - DSS MARINE P: + 844 843 3526 F: + 613 680 7418 E: canada-sales@tidelandsignal.com	UK - GT YARMOUTH P: + 44 (0) 1493 441711 F: + 44 (0) 1493 440322 E: emea-sales@tidelandsignal.com	SINGAPORE P: + 65 6333 0078 F: + 65 6333 0079 E: asia-sales@tidelandsignal.com	