



e-NAVCON

POSITION FIXING AND IDENTIFICATION SYSTEM, FCC APPROVED



e-NAVCON

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.

Characteristics

- 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.
- FCC approved November 2016.

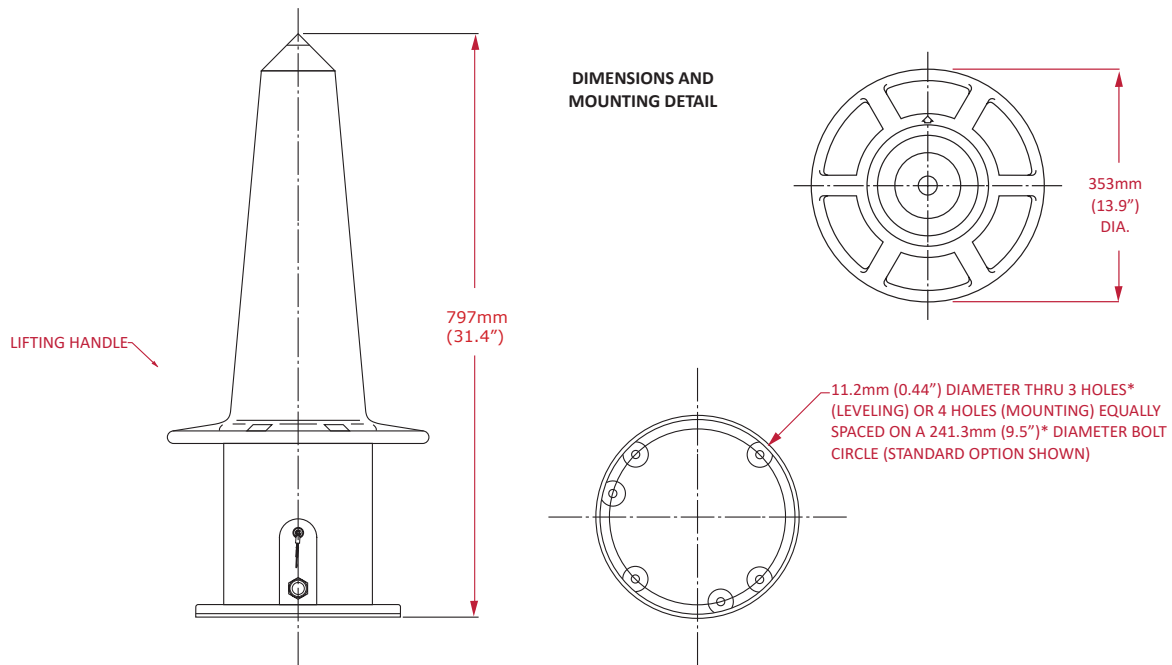


e-NAVCON

Technical Details

| | | |
|--|--|---|
| Frequency of Operation | | 9.3 to 9.5GHz |
| Frequency Matching Accuracy | | ± 2MHz |
| Output Power to Antenna | | >0.5W |
| Pulsewidth Response | | |
| Minimum | | 50 nanoseconds |
| Maximum | | 200 nanoseconds |
| Racon Response Display Scaling | | Racon Response (±5 µsec typical) |
| System Sensitivity | | |
| X-Band | | Better than -45 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 Reciever Channels | | 50 |
| GPS sensitivity | | Better than -159 dBm |
| Transmit Power (selectable) | | 2, 5 and 12W |
| VHF and GPS Antenna | | Internal |
| Standards | | 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 | | 10.0 to 16VDC |
| Lighting Protection - Surge Protection | | 1 millisecond at 3000 volts |
| Quiescent Power Consumption | | 0.05W |
| Nominal Power Consumption | | |
| Light Traffic | | 0.75W |
| Heavy Traffic | | 1.06W |
| Submersion Capability – Maximum Depth (Pressurised) | | 10 metres (35 feet) |
| Positive pressurisation | | Available with or without |
| Dimensions | | |
| Diameter (including lift ring) | | 353mm (13.9in) |
| Height | | 797mm (31.4in) |
| 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 +55° C |

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| System Sensitivity X-Band | Better than -45 dBm |



* Dimensions vary with options
NOTE: Specifications are subject to change.



Tideland Signal Corporation
(USA)
us-sales@tidelandsignal.com

Tideland Signal Ltd
(Canada)
canada-sales@tidelandsignal.com

Tideland Signal Ltd
(Burgess Hill, UK)
emea-sales@tidelandsignal.com

Tideland Signal
(The Netherlands)
emea-sales@tidelandsignal.com

Tideland Signal Ltd
(Dubai, UAE)
emea-sales@tidelandsignal.com

Tideland Signal Pte Ltd
(Singapore)
asia-sales@tidelandsignal.com

Tideland Signal Pte Ltd
(Tianjin, China)
asia-sales@tidelandsignal.com