e-NAVCON
POSITION FIXING AND IDENTIFICATION SYSTEM, FCC APPROVED
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.
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
  X-Band  Racon Response (±5 μsec typical)
Radar Blanking
  System Sensitivity  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
  External A
  External B
  Quiescent Period
  Extended Quiescent
  Active Period
  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
    AIS
    Transmit Power (selectable)
    Internal
    IALA A-126 Ed. 1.4 ITU-R M 1371-4-R
MESSAGE 21 CONTENT
  MMSI Number
  Position Accuracy
  Virtual AtoN Target Flag
  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)
    Available with or without
  Positive pressurisation
  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
  Temperature Range
  Audible Beeper
  Transistor Switch for Go/No-Go
  RS-232C Communications Port for monitor, control and field programming features
  Programmable 0 to 60 seconds
  Programmable selectable
  Programmable 4 to 60 seconds

**Frequency of Operation** 9.3 to 9.5GHz

**Frequency Matching Accuracy** ± 2MHz

**Output Power to Antenna**

**Pulsewidth Response**
Minimum

Maximum

**Racon Response Display Scaling**

**System Sensitivity**

X-Band

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### Dimensions and Mounting Detail

- 808mm (31.8") DIA.
- 11.2mm (0.44") DIAMETER THRU 3 HOLES* (LEVELING) OR 4 HOLES (MOUNTING) EQUALLY SPACED ON A 241.3mm (9.5") DIAMETER BOLT CIRCLE (STANDARD OPTION SHOWN)

* Dimensions vary with options

NOTE: Specifications are subject to change.

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