OVERVIEW
The Phalcon-EX-SS Zone 1 Racon is an important all-weather aids to navigation radar beacon which provides radar range and bearing information to ships for safe and efficient navigation, 24 hours a day. The Racon is energy efficient, compact, lightweight, and designed for superior performance.

Ideal for:
• Offshore structures
• FPSOs
• Navigation Buoys
• CALM and SPM Buoys

KEY FEATURES
• No pressurisation needed
• Extremely effective and reliable
• Frequency agile
• Side-lobe suppression (SLS)
• Automatic self-test feature
• Stainless Steel 316L base
• IALA and IMO compliant
• Proportional scaling
• Blanking
• 26 Morse code character settings
• External RS232 or RS485 port for programming
• X and S band

CERTIFICATION
• ATEX Certificate: ITS16ATEX101048X
• IECEx Certificate: IECEx ITS16.0046X
• Coding: Ex II 2 G Ex db eb mb [ibGb] IIB T5 Tamb -40˚C to +55˚C Gb
• Ingress Protection: IP-66

STANDARDS
• Directive 2014/34/EU, Annex II
• ITU-R M824-4
• EMC Directive 2014/30/EU;
  • EN61000-6-4:2007+A1 :2011
  • EN61000-6-2:2005
**MECHANICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Dimensions (HxD)</th>
<th>730x270mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>20kg</td>
</tr>
<tr>
<td>Mounting</td>
<td>4x M13 Bosses on 240mm PCD</td>
</tr>
<tr>
<td>Standard Accessories</td>
<td>2m Power and communications cable</td>
</tr>
</tbody>
</table>

**PERFORMANCE CHARACTERISTICS**

Programmable: All 26 Morse Code letters

Frequency:
- X-Band (9300-9500 MHz)
- S-Band (2900-3100 MHz)

Frequency Accuracy:
- ±2MHz (+200ns radar pulse X-band and S-band)
- ±1MHz (+200ns radar pulse X-band and S-band)

Response Delay: 0.5µs (X and S-band)

Receiver Sensitivity: -40dBm (X and S-band)

Polarization: Horizontal (X) and Vertical/Horizontal (S)

Antenna Gain: X-band: 5dBi, S-band 3dBi

Azimuth Response: 360° (±1dB) X-band and S-band

Vertical Response: ±10° (-3dB) X-band and S-band

Sidelobe Suppression: Dual token SLS (X-band and S-band)

Communications: RS-485-USB interface for programming, external diagnostics and alarm outputs

**ELECTRICAL SPECIFICATIONS**

Input Voltage: 9-36V DC

Average Power: 3W, based on traffic

*All values are subject to change without notice.*