

### 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;
  - EN6100-6-4:2007+A1 :2011
  - EN61000-6-2:2005

## MECHANICAL SPECIFICATIONS

Dimensions (HxD)	730x270mm
Weight	20kg
Mounting	4x M13 Bosses on 240mm PCD
Standard Accessories	2m Power and communications cable

## PERFORMANCE CHARACTERISTICS

Programmable	All 26 Morse Code letters
Frequency	X-Band (9300-9500 MHz) S-Band (2900-3100 MHz)
Frequency Accuracy	$\pm 2\text{MHz}$ (<200ns radar pulse X-band and S-band) $\pm 1\text{MHz}$ (>200ns radar pulse X-band and S-band)
Response Delay	0.5 $\mu\text{s}$ (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° ( $\pm 1\text{dB}$ ) X-band and S-band
Vertical Response	$\pm 10^\circ$ (-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.

