

# PHALCON<sup>®</sup> - 2000Ex d RACON

Single X-Band Only or Single S-Band Only  
ATEX and IECEx, Zone 1  
Flameproof Enclosure



RACONS are important all-weather aids to navigation, which provide radar range and bearing information for safe and efficient navigation 24 hours a day. Many RACONS are located in explosion rated areas and are being used to identify large offshore oil production facilities to passing shipping.

Pharos Marine has taken the Phalcon-2000 RACON and adapted it to a flameproof Ex d enclosure making the Phalcon-2000 Ex d the only **Zone 1 RACON** on the market that **does not require an active purging system** to maintain its Zone 1 rating. Eliminating purging greatly extends maintenance intervals and improves reliability.

Available as a X-band only or S-band only unit. The unit is housed in cast aluminum base with tempered glass dome that is practically transparent to microwave energy. The unit is ATEX and IECEx certified Ex 'd' IIB T4/5/6.

The Phalcon-2000EXD is fourth generation Racon that complies with all IALA/IMO recommendations. It provides frequency agile operation in either X or S Marine Radar bands. Dual **dual-token sidelobe suppression** and proportional scaling are standard features.

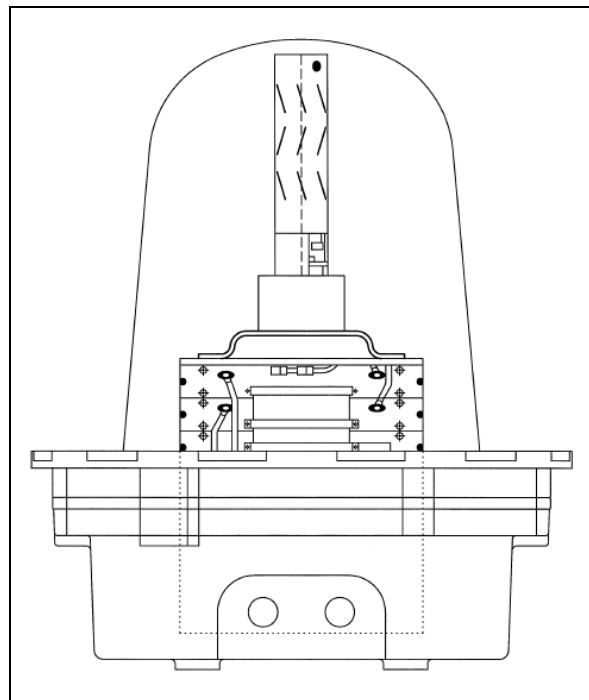
The Phalcon-2000EXD's duty cycle, sensitivity, and response code can be programmed in the workshop or on site, using an external RS-232 serial interface (connected to a laptop computer or other ASCII compatible terminal).

It is not necessary to open the Racon to gain access to internal switches to set these functions.

The unit may be programmed to show any Morse Code letter.

Form No.: 030712C

An automatic self-test feature monitors the performance of the Racon. Every 60 minutes, the program checks the operation and frequency accuracy of the Racon. If all is not well, **an audible signal as well as a digital alarm** is generated which can be fed to a monitoring system.



## PHALCON<sup>®</sup>-2000Ex d X-BAND RACON Model 332

### EC-Type Examination Certificates

Coding II 2 G Ex d IIB T4/T5\* T<sub>amb</sub> -40°C to +55°C\* Gb

\*Dependant on model

Certificate No.: Intertek ITS10ATEX17118X

Certificate No.: IECEx ITS 10.0040X

Epsilon IP Certificate Number: 04TEST1386

IP Rating: IP67



## SPECIFICATIONS

- **Input Voltage:** 9-36 volts DC
- **Quiescent Power Consumption:** less than 0.05 Watts (average)
- **Operational Power Consumption:**

(33% Duty Cycle 10 Radars Present)	1.4
Watt (average)	
(33% Duty Cycle 100% Interrogation)	1.5
Watt (average)	
- **Pulsed Output Power:**
  - X-band 1.0 Watt minimum
  - S-band 0.5 Watt minimum
- **Response Code:** Programmable – All 26 Morse Code Letters
- **Frequency:**
  - X-band (9300-9500 MHZ)
  - S-band (2900-3100 MHZ)
- **Frequency Accuracy:**
  - ± 2 MHZ (<200ns radar pulse X-band and S-band,
  - ± 1 MHZ (>200ns radar pulse X-band and S-band)
- **Communications:** RS-232/RS485 Serial Interface for programming, external diagnostics and alarm outputs
- **Failure Alarm:** Audible Alarm and Digital Alarm
- **Response Delay:** 0.667µs (X and S-band)

- **Receiver Sensitivity:** -40 dBm (X-band), -40 dBm (S-band)
- **Polarization:** Horizontal (X-band)  
Horizontal/Vertical (S-band)
- **Azimuth Response:** 360° (± 1 dB (X and S-band))
- **Vertical Response:** ± 10° (-3 dB (X-band and S-band))
- **Sidelobe Suppression:** Dual token SLS (X and S-band)
- **Temperature Range:** -40°C to + 55°C
- **Ingress Protection:** IP 67 (inert gas pressurization not required)
- **Shock and Vibration Tests:** Certification to MIL STD 810D
- **Dimensions:** Height:705mm, Diameter: 50mm; Weight: 20 Kg
- **Mounting:** 3 each M12 bosses on 200mm PCD
- **Standard Accessories:**
  - 2m power/communications cable
- **Optional Accessory:** Handheld programmer unit

**PHALCON®** is a registered trademark of of Pharos Marine/Automatic Power.

*Specifications subject to change without notice*

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