

Racon





#### To be installed in hazardous areas

The RBM04 Explosion Proof is a latest-generation (frequency-agile) Radar Beacon, which works in the marine X and S radar bands, with ATEX Classification to be installed in hazardous areas, such as offshore platforms.

### **FEATURES**

- · Classification: GROUP II: Equipment on surface (no mining) **ZONE 1: Category 2** ATMOSPHERE: GAS
- · Response on X and S bands.
- · Advanced Side-Lobe Suppression system (SLS) to better discriminate the genuine pulses to be responded.
- The length of the Morse code response matches the display range setting by programming the duration of the answer according to the pulse length before installation.
- · Transmitter power: 1W in both bands.
- · Configurable receptor sensitivity.
- · RS-232 communication serial port.
- · Configuration via PC.
- · Wide power supply range.
- · Low power consumption.
- · Maintenance free.







The RBM04-Ex benefits from the latest electronic technologies applied to AtoN radar systems, such as field programmable arrays and programmable timers.

The Racon actively answers all active radars in the vicinity with a user programmed Morse code which identifies its location by appearing on the radar display.

Designed according to IALA Recommendation and **IMO Standards.** 

II 2G Ex db eb IIB T6 Gb.









## Specifications Response encoding: A-Z, 0-9, SV

Response encoding:	A-Z, 0-9, SW-SE-NE-NW Morse codes, according IMO A530.
Output power:	Typical 1 W (X and S bands).
Response delay:	<700 ns (X and S bands).
Speed response (each band):	10 KHz.
Azimuth response:	360°.
Communications and programming:	RS-232 serial port. 3 nos. logic outputs. 1 nos. logic input.
Programmable activity:	0 to 60 seconds.
Programmable idle mode:	0 to 60 seconds.
Side-Lobe Suppression (SLS):	Advanced

### Materials and environment

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Temperature range:	-20° C to +60° C
Materials:	AISI316 stainless steel and polyamide.
Dimensions (L x W x H):	284 x 284 x 710 mm.
Weight:	35 kg.
Watertightness degree:	IP 67.
Fixings:	6 nos. Ø10 drill holes each 60° in a 254 mm diameter.

### Frequency range -

X band:	9,300-9,500 MHz.
S band:	2,900-3,100 MHz.
Frequency acuracy:	< +/- 2 Mhz (<200ns), > +/- 1 Mhz (>200ns).

### Receptor sensitivity (adjustable) / Polarisation

X band:	-50 dBm / Horizontal.
S band:	-50 dBm / Horizontal and vertical.

#### Antenna -

Broadcasting uniformity:	X Band: -4 dBi ±2 dB Horizontal over 360° (horizontal). S Band: -2 dBi ±0.5 dB Horizontal.
Vertical divergence:	X Band: 26°. S Band: 34°.

### Power supply voltage

Nominal:	12 V d.c.
Minimum:	9 V d.c.
Maximum:	36 V d.c.

#### Power consumption

Average nominal:	120 mA.
Maximum:	700 mA.
Idle:	6 mA - 12V.

#### Standards and Certifications

Gas: II 2G Ex db eb IIB T6 Gb

Group II: Equipment in surface (no mining).

Zone 1: Category 2.

General requirements: EN 60079-0 Standard.

Equipment protection by Increased Safety: "eb", EN 60079-7 Standard.

Equipment protection by Flameproof Enclosure: "db", EN 60079-1 Standard.

Temperature Class: T6. 85°C.

Protection against Gas: (G).

Atex certification n°: LOM 17ATEX1028X

#### Accessories —

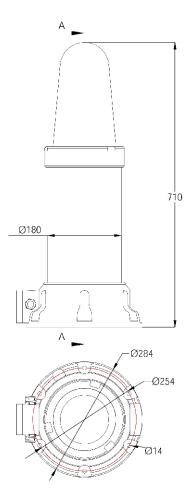
Programming cable.

User manual.

#### **OIL & GAS EQUIPMENT**

# RBM04-EX









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