

**Zone 1 reliable Frequency Agile Racon in accordance with IALA and IMO specifications. Side Lobe Suppression function on both X and S band and designed from stainless steel to meet the requirements of the harsh offshore environment.**



### Key features

- Reliable Frequency Agile Racon in accordance with IALA and IMO specifications
- Low cost of ownership and power consumption
- Designed to work in conjunction with the Navaid Central Control Panel (NCCP) concept
- Built-in self test and self calibration capabilities ensuring low unattended service
- Possibility to activate the side lobe suppression (SLS on X and S band) function and choose duty operation cycles (Orga service engineer only)
- Measures and answers each detected ship's radar pulse (except for the wake-up pulse) and answers simultaneous to several radars

### Standards/Certification

- Complies with IALA recommendation; R-101 Marine Radar Beacons (racons), 2nd Edition – Dec. 2004
- Complies with IMO resolution; A.615(15) Radar beacons and transponders, Nov. 1987
- Complies with ITU-R recommendation; M.824-2 Technical parameters for radar beacons, Annex 1
- Cenelec EN 50014, EN 50018, EN 50019, EN 60079-0, EN 60079-1 and EN 60079-7
- KEMA 06ATEX0018; Ⓜ II 2G Ex de IIB T6,

### Performance characteristics

- Frequency range: X band (9,300-9,500MHz) / S band (2,900-3,100MHz)
- Reception: X and S bands independently
- Detected pulse widths: 50 to 2,000nsec
- Receiver sensitivity: -40dBm, X band (adjustable) / -35dBm, S band (adjustable)
- Response delay: 670nsec and <700nsec typical
- Transmission: X and S bands
- Frequency response accuracy: +/- 1.5MHz if pulse with >200ns +/- 3.5 MHz if pulse with <200nsec
- Side Lobe Suppression: Independent in X and S bands
- Transmission power: 1.0W minimum, X band / 1.0W minimum, S band
- Code answers: Programmable, 15 letters of Morse code in compliance with IMO A.530(13)
- Answer duration: Selected by user (6 to 60microsec)
- Duty cycles: Programmable, active from 0 to 60sec, idle from 0 to 60sec

### Electrical characteristics

- Operating Voltage: 10 to 32Vdc
- Power consumption: Max. 15W peak
- Stand-by current: Max. 20mA @ 12Vdc (with X and S bands in operation)
- Listening current: Max. 100mA @ 12Vdc (with X and S bands in operation)
- Operating current: Max. 1300mA @ 12Vdc (with X and S bands in operation)

continued

### Physical characteristics

- Dimensions (L x W x H):  
379 x 268 x 856mm
- Weight: 30kg
- Degree of protection: IP66
- Operating temperature range:  
-20°C to +40°C
- Material housing: stainless steel 316 and impact resistant synthetic antenna dome fitted with anti bird spike to prevent bird fouling
- Material junction box:  
glass-reinforced polyester

### System design, control and monitoring

- All parameters are factory preset, with re-programming of the internal software in order to make future upgrades possible (Orga service engineer only)
- Default parameters: Serial link RS-232 for programming and maintenance (Orga service engineer only)
- Output logical: 3-state digital output, open collector X-band fault, S-band fault, power supply fault
- Logical input: beacon inhibition for VTS (Vessel Traffic Service)
- Antenna polarization: Horizontal and vertical polarization in S band / Vertical in X band
- Antenna gain (pan): +/- 2dB in X band and S band over 360°
- Antenna gain (tilt): +/- 3dB in X band and S band over 15°

# ITR04EX

Explosion proof racon

