





Ex certified fixed power transponder

The RADius 800X transponder is a part of the short-distance relative positioning system RADius. It is developed for use in applications where the need for a robust and highly accurate relative positioning system is crucial. The RADius 800X transponder is suitable for fixed installations, typically on a platform or an FPSO.

Transponder main parts

The main parts of the RADius 800X transponder equipment are:

- The transponder panel and the transponder connection box with terminals for the DC voltage cable and a DIP switch for setting the Transponder Identification code (TID).
- The transponder mounting bracket for horizonal or vertical rail mounting.
- The Power and Barrier Cabinet, which is mounted in a safe area. The Power and Barrier Cabinet can supply up to four transponders.

ATEX certification

ATEX category 2 G product, gas group II B, temperature class T4, specified ambient temperature rating -20 °C to +60 °C.

Product marking: $\langle \xi x \rangle$ II 2 GEx ib IIB T4 -20 °C \leq Tamb \leq 60 °C.

Unique identification

The transponders are coded with unique IDs ensuring reliable identification and tracking of vessels in demanding environments. Several interrogators can approach the same transponders, ensuring multi-user capabilities.

FEATURES

- ATEX certified
- Fixed power
- Long-range
- No moving parts
- All-weather operation
- RADius 1000/2000 system
 compatible
- High radar cross section



Technical specifications

RADius 800X

Performance Range Acquisition range¹ DP range²

Up to 1000 m Up to 550 m

Opening angle Vertical Horizontal

±50° ±50°

Transponder identification (TID) 212 - 298 Range

Power specifications RADius 800X transponder

Input voltage, nominal

Current, nominal

5 VDC (dependent on cable length) 70 mA

100 - 240 VAC, 50 - 60 Hz

Power and Barrier Cabinet Input voltage

Output voltage

(from vessel power supply) 5 VDC

Weights and dimensions RADius 800X transponder

Transponder Weight without bracket Weight with bracket

Power and Barrier Cabinet Dimensions Weight

9.1 kg 382 × 458 × 210 mm

562 × 569 × 214 mm

7.4 kg

15 kg

Possible to acquire the signal, typically range only in order to verify that your reference system is available. At a certain range, the system will track both range and bearing with a 1 large probability. However, the bearing will have limited accuracy.

2 The system will be fully operational both in range and bearing

Environmental specifications

RADius 800X transponder Operating temperature Storage temperature Operating humidity Storage humidity Ingress protection

-20 - +60 °C +5 - +40 °C (recommended) 20 - 100 % RH 20 - 70 % RH IP66

Power and Barrier Cabinet

Operating temperature -20 - +55 °C Ingress protection cable gland IP66

Standards and regulations

Compliance to Radio Equipment Directive (RED) Environmental

Ex certificates ATEX certificate

Presafe 19 ATEX 14991X

2014/53/EU IEC/EN 60945

Specifications subject to change without any further notice.

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