





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: $\langle Ex \rangle$ II 2 G Ex ib IIB T4 Gb -20 °C \le Ta \le +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 Up to 1000 m Up to 550 m DP range²

Opening angle

Vertical **S** ±50° ±50° Horizontal

Transponder identification (TID) 212 - 298 Range

Power specifications RADius 800X transponder

5 VDC (dependent on cable Input voltage, nominal

length)

Current, nominal 70 mA

Power and Barrier Cabinet

Input voltage 100 - 240 VAC, 50 - 60 Hz

(from vessel power supply)

5 VDC Output voltage

Weights and dimensions RADius 800X transponder

Transponder 562 × 569 × 214 mm

Weight without bracket 7.4 kg Weight with bracket 9.1 kg

Power and Barrier Cabinet

382 × 458 × 210 mm Dimensions

Weight 15 kg **Environmental specifications** RADius 800X transponder

Operating temperature

-20 - +60 °C +5 - +40 °C (recommended) Storage temperature

Operating humidity 20 - 100 % RH 20 - 70 % RH Storage humidity Ingress protection IP66

Power and Barrier Cabinet

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

Standards and regulations

Compliance to Radio

Equipment Directive (RED) 2014/53/EU IEC/EN 60945 Environmental

Ex certificates

Presafe 19 ATEX 14991X ATEX certificate

Specifications subject to change without any further notice.

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 large probability. However, the bearing will have limited accuracy.

The system will be fully operational both in range and bearing