



KONGSBERG

RADius 700X

ATEX Certified Long Range Battery Operated Transponder



The RADius 700X long-range transponder is a part of the short-distance relative positioning system RADius for use in applications where the need for a robust and highly accurate relative positioning system is crucial. The system comprises an interrogator - typically installed on a vessel - operating in the GHz maritime band and transponders that are typically deployed on the target. RADius 700X has an operating range of up to 1000 meters.

The RADius 700X Long Range Transponder is an intrinsically safe product (category 2) suitable to be installed in hazardous locations where there may be an explosive mixture of flammable gases belonging to gas groups IIB and/or IIA. The transponder can be used in hazardous zones 1 and 2. Temperature class is T4.

The RADius 700X is powered from an encapsulated battery with an integral current limiting resistor and has no wired connection to other equipment.



Unique ID

The transponders are coded with unique ID's ensuring reliable identification and tracking in cluttered environments. Several interrogators can approach the same transponders, ensuring multi-user capabilities. Up to five transponders can be tracked simultaneously by the interrogator. The transponder is suited with dip-switches for easy setting of transponder ID.

Technical specifications

Range *)

Operational range up to 1000 m
DP range < 550 m

Opening angle

vertical ± 45°
horizontal ± 45°

Physical properties

H x W x D: 564 x 560 x 214 mm
Weight: 7.4 kg
Colour:
Electronic part: White front/grey rear

Battery module data

Type: Primary cell, D-size, IEC 60086-1 type E
Open loop battery voltage: Max 3.7 VDC
Capacity: 19 Ah (one cell)
Expected lifetime: 1,5 year
Short circuit current for battery module: Maximum 9.6 mA
Current consumption for low power transponder: Approximately 1 mA

Environmental data

Humidity Operational: 20 - 100 % RH
Humidity Storage: (Recommended) 20 - 70 % RH

Ingress protection

Transponder electronic unit: IP 66

Temperature range

Operational: -25 °C to +60 °C
Storage: (Recommended) +5 °C to +40 °C

Electromagnetic compatibility:

Compliant to IEC 60945 ed 4

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- Possible to acquire the signal, typically range only, within the "Operational Range - > 1000 meters" (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.
- At the "DP Range - >550 meters", the system will be fully operational both in range and bearing.



All information is subject to change without notice.

Patented technology

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