

RADius 700X



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.

Specifications

Product	RADius /00x
Country of origin	Norway
Manufacturer	Kongsberg Discovery

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 IDs ensuring reliable identification and tracking of vessels in demanding 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 the transponder ID.

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 on electronic part:	White front/grey rear

IS 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 the low power transponder	Approximately 1 mA

Environmental data

Humidity operational	20 - 100 % RH
Humidity storage	20 - 70 % RH
Ingress protection Transponder electronic unit	IP 66
Temperature range Operational	- 25 °C to + 60 °C
Storage	+5 °C to + 40 °C
Electromagnetic compatibility	Compliant to IEC 60945 ed 4

Patented technology

Patent No.	US 7,315,274 B2
Date of patent	Jan. 1, 2008