

RADIUS 600X



KONGSBERG



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ATEX CERTIFIED TRANSPONDER

The RADius 600X transponder is a part of the short-distance relative positioning system RADius, developed for use in applications where the need for a robust and highly accurate relative positioning system is crucial.

The RADius 600X high gain transponder is an intrinsically ATEX 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 600X is powered from a power supply located in a safe (non-hazardous) location and a zener barrier is used to limit the delivered energy to the hazardous location to a safe level. The barrier - located in a safe area - will prevent any hazardous voltage or excessive current from reaching the hazardous zone. For long cable runs an alternative approved power solution can be delivered. Contact Kongsberg Seatex for more information.

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.



TECHNICAL SPECIFICATIONS RADIUS 600X

Range

Operational range	Up to 1000 m *)
DP range	< 550 m **)

Opening angle

Vertical/horizontal	± 45°/± 45°
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Weight and dimensions

RADius 600X transponder

Transponder with connection box	220 x 400 x 147 mm
Weight without clamps	3.3 kg
Weight with clamps	3.5 kg

Transponder power supply

Dimensions	126 x 226 x 90 mm
Weight	2.5 kg

Zener barrier

Dimensions	12.5 x 110 x 115 mm
Weight	0.2 kg

Power

RADius 600X transponder

Current power consumption	100 to 125 mA
Input voltage	4 to 4.5 V DC

Transponder power supply

Input voltage	90 to 250 V AC
Output voltage	6 V DC
Output current	2.5 A (max.)

Environmental specifications

RADius 600X transponder

Operating humidity	20 to 100 % RH
Storage humidity	20 to 70 % RH (recommended)
Ingress protection transponder	IP 66
Ingress protection connection box	IP 66
Operating temperature range	-25 °C to +60 °C
Storage temperature range	+5 °C to +40 °C (recommended)

Transponder power supply

Enclosure material	Aluminium
Enclosure protection	IP 66
Operating temperature range	-15 °C to +55 °C
Operating humidity (max.)	95 %
Storage temperature range	-25 °C to +70 °C
Storage humidity (max.)	60 %

Zener barrier

Operating humidity	10 to 95 % RH
Storage humidity	20 to 70 % RH
Ingress protection	IP 20
Operational temperature range	-20 °C to +60 °C
Storage temperature range	+5 °C to +40 °C (recommended)

Electromagnetic compatibility

Compliant to EMCD, immunity/emission	IEC 60945 ed. 4
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ATEX certificate

EC type examination certificate, DNV-2005-OSL-ATEX-0040

**) 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.*

Specifications subject to change without any further notice.

