

X-band Radar Sensors

The Kongsberg X-band (3 cm) radar sensors include sensors for both 10 kW and 25 kW transmission.

The X-band radar sensors are available as masthead mounted (up-mast) transceivers and can be provided with both 6 and 8 feet scanners.

Features

- Modular design
- Built-in power supply unit
- Built-in performance monitor (required for IMO SOLAS vessels)
- Digital Ethernet transceiver side interface ensures reduced cabling cost and lossless transmission

X-band Advantages

- Increased resolution with a smaller antenna than the S-band radar sensor
- Compatible with SARTs (Search And Rescue Transponders) and radar beacons

Options for Standard Models

- 6 feet or 8 feet scanners
- 10kW or 25 kW transceivers
- Digital Ethernet transceiver side interface for after market



Standards Applied

The equipment meets in full or exceeds the requirements of IEC 60945 and IEC 62238.

Type Approval

The equipment conforms to the relevant EU MED directives.

Technical Specifications

Transmitter characteristics

Magnetron Nominal Peak Power: 10 kW or 25 kW
 Magnetron Frequency: 9410 Mhz

Pulse Length/PRF

0.05 μ s / 1760 Hz Nominal
 0.25 μ s / 1760 Hz Nominal
 0.75 μ s / 785 Hz Nominal

Pulse Generator

Solid-state with pulse forming network driving a magnetron.

Receiver characteristics

Logarithmic
 Low noise front end
 Automatic or manual tuning
 IF centered at 60 Mhz
 IF bandwidth 20 Mhz (Short pulse) nominal
 IF bandwidth 20 Mhz (Medium pulse) nominal
 IF bandwidth 3 Mhz (Long pulse) nominal
 Noise factor 5 dB nominal

Radar Scanners:

Transceiver Power Supplies

Nominal input
 AC 92 V to 276 V RMS at 47 Hz to 64 Hz, or
 DC 21.6 V to 32 V (10 kW only)

Consumption:	10 kW	25 kW
	210 W	250 W

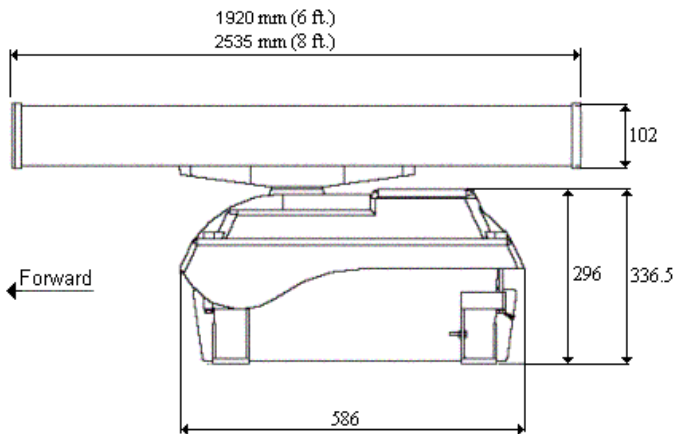
Power consumption figures assume 100 knots wind.

Scanner Characteristics

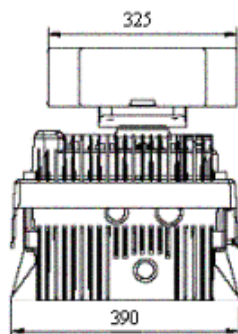
Aperture length:	6ft. (1.88m)	8ft. (2.5m)
Horizontal beamwidth:	1.3° max	1.0° max
Vertical beamwidth:	24° nom	24° nom
Sidelobes within 10° -min:	-23 dB	-23 dB
Sidelobes outside 10° -min:	-30 dB	-30 dB
Gain (nominal):	30 dB	31dB
Polarization:	Horizontal	Horizontal
Rotation:	28rpm	28rpm
Limiting rel. wind speed:	100 knots	100 knots

Environmental Specification

In compliance with IEC 60945.
 Minimum operating temperature - 40°C.



Weight, including transceiver
 6 ft. 52 kg max
 8 ft. 55 kg max



KONGSBERG MARITIME

Switchboard: +47 815 73 700

Global support 24/7: +47 33 03 24 07

E-mail sales: km.sales@kongsberg.com, www.kongsberg.com



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