

S-band Radar Sensors

The Kongsberg series of S-band (10 cm) radar sensors are available in both masthead (up-mast) and bulkhead (down-mast) mounted transceivers. The S-band solution is the best solution under adverse weather conditions.



Features

- Modular and solid state design
- Built-in power supply unit
- Powered directly from ship's mains via a control unit
- Built-in performance monitor (required for IMO SOLAS vessels)

S-band Advantages

- Smaller attenuation and back scattering from rain, hail and snow
- Less sensitive to sea clutter returns

Options for Standard Models

- Masthead (up-mast) or bulkhead (down-mast) mounted transceiver

Standards applied

The equipment meets in full or exceeds the requirements of IEC 60945 and IEC 60936-1.

Type Approval

The equipment conforms to the relevant EU MED directives.

Technical Specifications

Transmitter characteristics

Magnetron Nominal Peak Power: 30 kW
 Magnetron Frequency: 3050 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

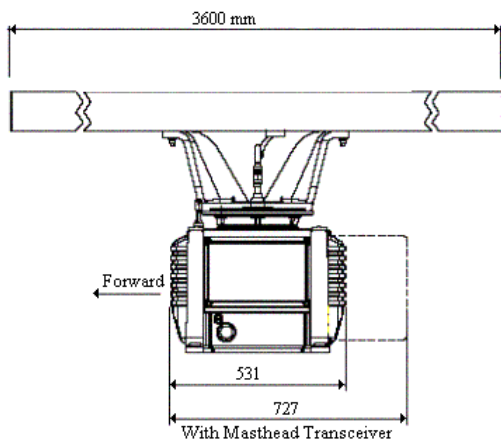
Pulse Generator

Solid-state with pulse forming network driving a magnetron.

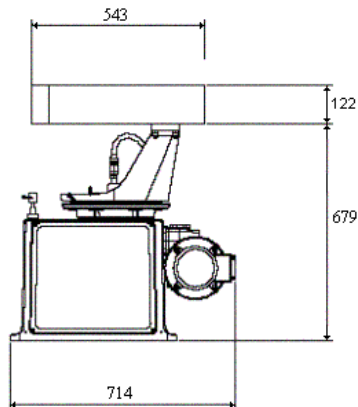
Receiver characteristics

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 Scanner:



Weight: 163 kg max including transceiver
 Weight: 150 kg (Turning Unit w/o transceiver)



Turning Unit Power Supplies

Nominal input
 Single phase 110V or 220V, 50/60 Hz, 710 VA
 Three phase 110V, 220V or 440V, 50/60 Hz, 440 VA
 Power consumption figures assume 100 knots wind.

Transceiver Power Supplies

Nominal input
 AC 92 V to 276 V RMS at 47 Hz to 64 Hz 120 W

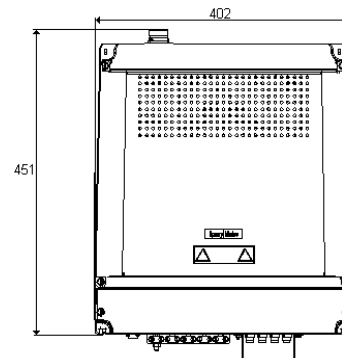
Scanner Characteristics

Aperture length: 12 ft. (3.5m)
 Horizontal beamwidth: 2° max
 Vertical beamwidth: 30° nom
 Sidelobes within 10° - min: -23dB
 Sidelobes outside 10° - min: -30dB
 Gain (nominal): 26dB
 Polarization: Horizontal
 Rotation: 50 Hz: 25 rpm
 60 Hz: 30 rpm
 Limiting relative wind speed: 100 knots

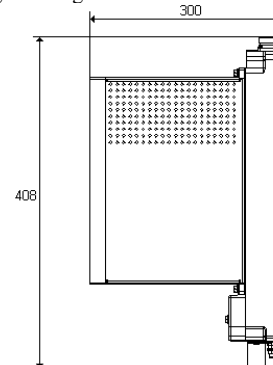
Environmental Specification

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

Down-mast Transceiver:



Weight: 25 kg



All dimensions are in millimetres.

KONGSBERG MARITIME AS

P.O. Box 483, N-3601 Kongsberg, Norway

Telephone +47 32 28 50 00 Telefax +47 32 28 50 13

e.mail: km.sales@kongsberg.com, www.kongsberg.com



KONGSBERG