



25 kW X-BAND NAVIGATION RADAR SENSOR

ASX-0670**ASX-0770****ASX-0970**

Ultra low noise, compact radar sensor.
Specially designed for navigation application.

Features

- light, compact and silent design
- digital interface
- upmast or downmast transceiver configuration
- brushless motor (maintenance free)
- antenna rotation speed: 22 rpm (standard version), 42 rpm (HSC version)
- antenna lengths: 6', 7.5' and 9'
- embedded performance monitor
- simple installation and maintenance procedures
- environmental conditions compliant to IEC-60945 ed.4 category exposed
- wind resistance compliant with IEC-62388 ed.2 par. 15.5
- shock: compliant with IEC-62388 ed.2 par. 17.3.2
- acoustic noise: compliant with IEC-60945 ed.4 par. 11.1
- de-icing optional provision (to extend operating temperature down to -40°C)
- safety: compliant with IEC-60945 ed.4 par. 12

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TRANSCEIVER UNIT PERFORMANCE

Peak power (nominal):	25 kW
Radiation frequency:	9410 ± 30 MHz.
Pulse Width:	80 ns 200 ns 400 ns 800 ns (± 20nsec; for PW > 300nsec ± 10% tolerance)
Pulse Repetition Frequency:	2000 Hz 1000 Hz 750 Hz 500 Hz (with ± 5% tolerance – stagger function included)
Receiver type:	logarithmic, fully solid state
Dynamic range:	> 100 dB
Intermediate Frequency (I.F.):	60 MHz ± 2 MHz
I.F. bandwidth:	20 MHz with short and medium pulse 4 MHz with long and extralong pulses (with ± 10% tolerance)
Noise figure:	< 3.5 dB
Range discrimination:	Better than 30 mt
Interface:	100 MB Ethernet LAN
BITE:	embedded performance monitor (optional)
Power supply:	24 VDC - 115 / 220 VAC with optional AC/DC unit

ENVIRONMENTAL PERFORMANCES

Operating temperature range:	From -25°C to +55°C with optional de-icing Low Temperature extend down to -40° C
Relative humidity:	Up to 95% at +40%
Vibrations	In accordance with IEC-60945
Shocks	In accordance with IEC-62388 (17.3.2)

ROTATION UNIT PERFORMANCE

Rotation speed	22 or 42 ± 2 rpm (HSC version)
Tolerable relative wind speed	100 knots (at 22 rpm)
Survival with speed	120 knots (not operative)
Encoder	4096 pulses
Motor	brushless (maintenance free)

COLORS

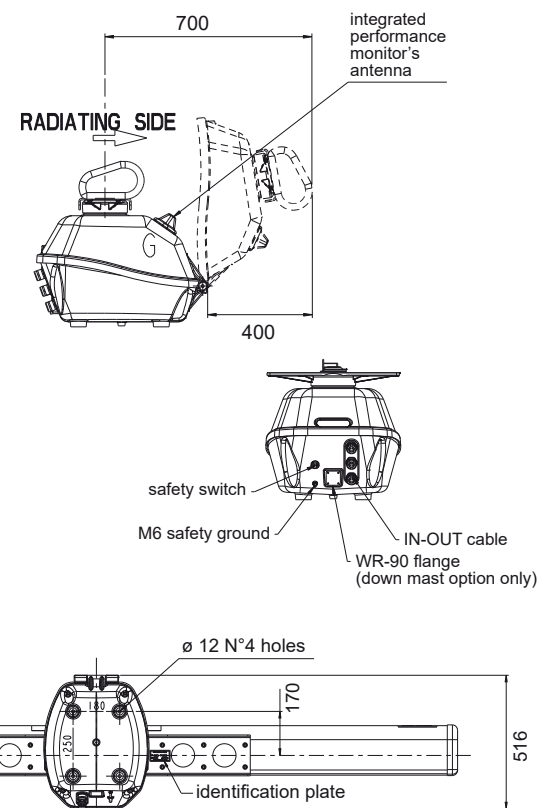
White RAL9003 (Standard)
Navy Gray FED-STD 595 - 26373 (on request)

ARRAY MODEL

6 feet 7.5 feet 9 feet

Type	Slotted waveguide		
Frequency band	X band, $\lambda = 3.2$ cm, frequency range 9410 ± 60 MHz		
Polarization	Horizontal	Horizontal	Horiz. / Circul.
Horizontal beamwidth to -3dB	≤ 1.2°	≤ 1.1°	≤ 0.85°
Bearing discrimination with e-DAR® processing	Better than 0.5°		
Vertical beamwidth to -3dB	~ 22°		
Sidelobes within 10°	≤ -26 dB		
Sidelobes outside 10°	≤ -30 dB		
Gain	≥ 31 dBi ± 0.5 dB	≥ 32 dBi ± 0.5 dB	≥ 33 dBi ± 0.5 dB

6 feet (1940 mm) - 7.5 feet (2210 mm) - 9 feet (2790 mm)



Weight:

- Scanner Unit:	30 Kg.
- 6' Antenna:	5.8 Kg.
- 7.5' Antenna:	9 Kg.
- 9' Antenna:	11 Kg.

Surveillance & Security

Guidance, Navigation & Positioning

Military & Defence

Marine Electronics

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GEM elettronica

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