

**SPECIFICATIONS OF RADAR SENSOR  
DRS6A X-Class**

**1 ANTENNA UNIT**

- 1.1 Antenna type                    Slotted waveguide array
- 1.2 Antenna length                3.4 ft (XN10A), 4 ft (XN12A), 6 ft (XN13A)
- 1.3 Horizontal beam width        2.3° (XN10A), 1.9° (XN12A), 1.35° (XN13A)
- 1.4 Vertical beam width          22°
- 1.5 Gain                            28.5 dBi (XN12A), 30 dBi (XN13A)
- 1.6 Sidelobe attenuation
  - XN10A                           -20 dB (within ±10°), -28 dB (±10° or more)
  - XN12A                           -24 dB (within ±10°), -30 dB (±10° or more)
  - XN13A                           -28 dB (within ±10°), -35 dB (±10° or more)
- 1.7 Rotation                       24/36/48 rpm range coupled or 24 rpm fixed
- 1.8 Relative wind load           70 kn or less

**2 RADAR FUNCTION**

- 2.1 Tx frequency                 9410 ±30 MHz
- 2.2 Output power                 6 kW nominal
- 2.3 Duplexer                     Ferrite circulator with diode limiter
- 2.4 Intermediate frequency      60 MHz
- 2.5 Range, Pulse length and Pulse Repetition Rate (PRR)

| Range (NM)     | Pulse length (μs) | PRR (Hz. approx.) |
|----------------|-------------------|-------------------|
| 0.0625 to 0.75 | 0.08              | 3000              |
| 1 to 1.5       | 0.15              | 3000              |
| 2              | 0.3               | 1500              |
| 3 to 4         | 0.5               | 1000              |
| 6 to 8         | 0.8               | 600               |
| 12 to 64       | 1.2               | 600               |
| 72 to 96       | 1.2               | 550               |

- 2.6 Minimum range               25 m
- 2.7 Range resolution             20 m
- 2.8 Range accuracy              Within 1% of range in use
- 2.9 Bearing resolution          2.3° (XN10A), 1.9° (XN12A), 1.4° (XN13A)
- 2.10 Bearing accuracy          Within ±1°
- 2.11 Warm-up time               90 s approx.
- 2.12 Target tracking (TT)        Auto or manual acquisition: 30 targets between 0.1 NM and 16 NM  
 Past position: 5/10 pts on all activated targets  
 Vector time: 1 to 60 min.

**3 INTERFACE**

LAN: 1 port, Ethernet, 100Base-TX

**4 POWER SUPPLY**

24 VDC: 4.0 A

## 5 ENVIRONMENTAL CONDITIONS

- 5.1 Ambient temperature -25°C to +55°C (storage: -30°C to +70°C)
- 5.2 Relative humidity 95% or less at +40°C
- 5.3 Degree of protection IP56
- 5.4 Vibration IEC 60945 Ed.4

## 6 UNIT COLOR

N9.5