SEA SOFTWARE & HI-END SOLUTIONS SURVEILLANCE

Weather-resistant Ex(p) Radome

II 2 G EEx pdem[ib] II T3

Overview

The Ex(p)-Radome is a self-regulating system designed primarily for X-band Radar, both with respect to physical dimensions and frequency but may be used for all kinds of surveillance equipment needing an Ex(p)-protected enclosure for harsh weather conditions.

How radome works

1. Initialization phase – 69 min

When the power is put on the Radome flushing / purging starts. This is used to get rid of gas that might have intruded the Radome if it has been without power or out of use. Purged air usage is normally 1470 liters a minute.

2. Ready for turn on the equipment inside the Radome

Purging finished and equipment inside will get power.
Now the purge vent is closed.

3. Operation phase

Radome controls maintenance air vent based on feedback from pressure and temperature sensors. Maintenance air is no more than 37 liters a minute.

4. Shut down

Normal operation pressure is between 13-17 mBar.
Lower than 8 mBar it will cut power to equipment inside.

Benefits:

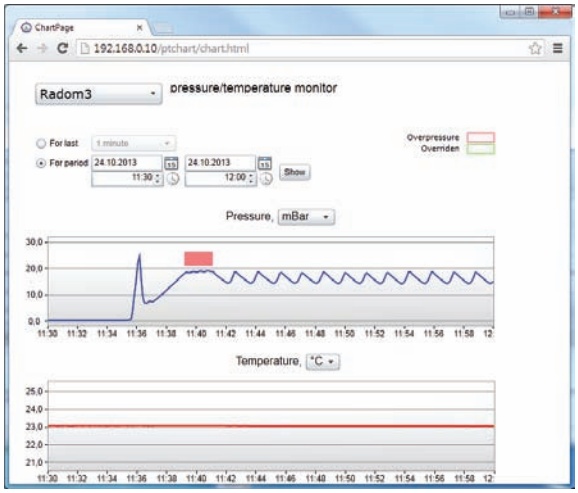
- Ideally suits for housing sensitive equipment (radars, etc) in potentially explosive atmospheres
- Allows using radars during gas leakage
- Protects equipment from harsh weather conditions
- Increases equipment workout and durability
- Doesn't affect electromagnetic equipment performance
- Allows to monitor remotely pressure, temperature and operational status of the system

Areas of use:

- Oil platform, FPSO / FSO surveillance radar systems
- Ship surveillance radars
- Oil field surveillance vessels
- Harbour radar / radio surveillance
- Coastal zone radar surveillance
- VTMS - Vessel Traffic Management Systems

Remote monitoring system

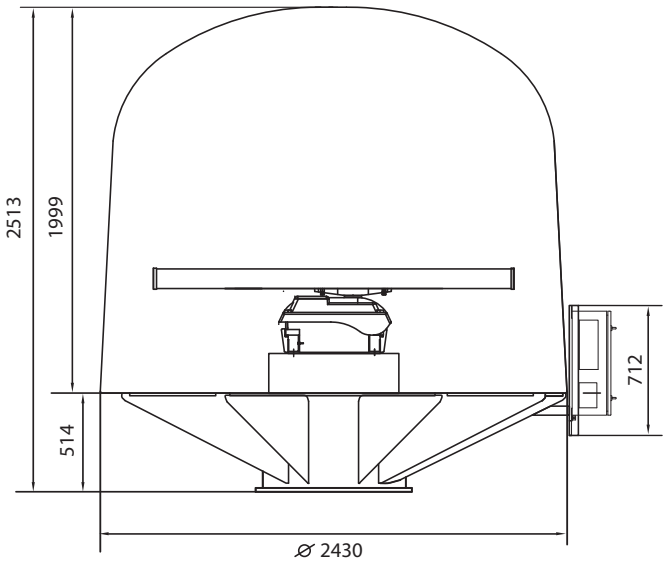
Remote monitoring system consists of applications that are reading, storing in DataBase and displaying Radome parameters: temperature, pressure and operational status. Information can be accessed from standard web browser locally or from remote location. Performance history is available for up to 12 months.



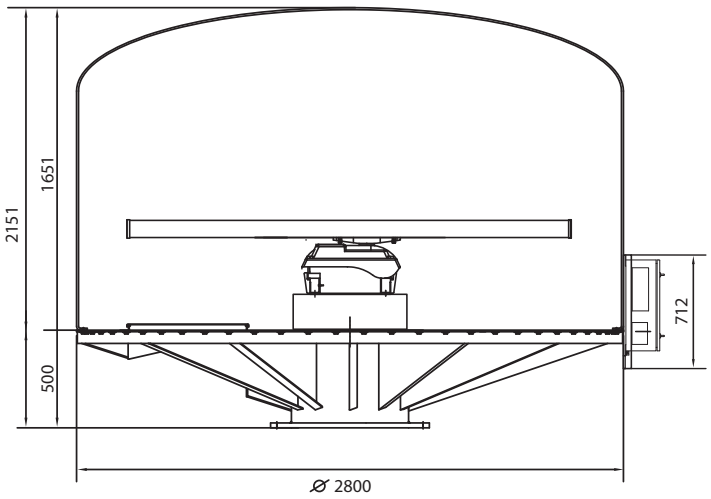
Technical specification

Parameter	Model 10223-6 Ex(p) Model 10223-6	Model 10223-8-Ex(p) Model 10223-8
Sensors	Sperry Marine Vision Master, 6' (1,8 m) antenna, other by request	Sperry Marine Vision Master, 8' (2,4 m) antenna, other by request
Volume	7000 liters	10000 liters
Weight	830 kg	1100 kg
Material	Dome: gas and dust-proof fiberglass optimized for 9,4GHz Support frame: stainless steel	
Mounting	20 bolts M35, Standard 24" ANSI Flange	
Wind tolerance	Designed for 350 km/hr (225mph)	
Seal Tolerance (ATEX)	Air tight, max leakage 37 lit/min	
Interfaces	Radar Video: 75 ohm Coaxial cable Power: 230VAC/10A Radar Control: 8×2×0,75 mm² Control cable Supplied air: pressurized at 6-8 Bar 1470 liters/minute ½" pipe	
Optional	Internal ex-heaters Microwave absorption kit Shielding panel kit	

Model 10223-6 Ex(p)



Model 10223-8-Ex(p)



Non-ex version of Radome

Radome in non-ex version is used for protection of nearby personnel from being accidentally struck by quickly-rotating antennas and for protection of equipment from harsh weather conditions:

- Wind
- Ice
- Freezing rain
- UV rays etc.

Certificates and standards

- EN 50016 high pressure execution (tests)
- EN 50014 general regulations
- EN 50018 explosion safety tests
- EN 50019 flame-proof tests

Laksevågneset 12, 5160 Laksevåg, Bergen, Norway, +47 55 13 65 00, info@seasurv.net, www.seasurv.net