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# DDS-03

INTRUDER DETECTION SONAR



## DDS-03

The high-frequency active sonar DDS-03 has been specially designed for protection against underwater threats as these coming from divers and both manned and unmanned underwater vehicles (SDV, ROV or UUV).

DDS-03 sonar constitutes the last generation of the SAES DDS sonars, which has been successfully verified and validated in a wide variety of operational environments as deployment from vessels and in harbour, presence of closed and open circuit divers, presence of swimmers, tidal effect exposure, etc. Highlighting the excellent result obtained in the NATO Harbour Protection Trials 2006 conducted in la Spezia - Italy.

**The main characteristics of DDS-03 sonar are:**

- Detection range up to 1000 m -
- Range accuracy < 1.5 m -
- Bearing accuracy < 1.5° -
- Field of view of 90°/180°/270°/360° -
- Emission of CW & FM pulses -
- Automatic detection and tracking of targets -
- Automatic alarms -
- Contact velocity display -
- Automatic contact classification -
- Electronic steering of the emission beam -
- Source level adjustable from the Surface Unit -
- Up to 10 Underwater Units -
- (can be integrated in a common Control Unit)
- WIFI communications -
- Integrated Digital Mapping -
- Three levels of system functioning tests -
- Deployable from rigid mechanism or cable -
- Light weight systems with reduced dimensions -



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In their basic configuration, DDS-03 is composed by three units: Surface Unit, Underwater Unit and Intermediated Unit.

**Surface Unit:**

Based on COTS PC equipment, the Surface Unit is in charge of acoustic processing, graphical presentation and system control.  
 Dimensions: 55cm (width) x 40cm (depth) x 20cm (height).  
 Weight: < 20 Kg.

**Intermediate Unit:**

Underwater Unit power supply and control of communications between the Underwater Unit and the Surface Unit.  
 Dimensions: 40cm (width) x 30cm (depth) x 20cm (height).  
 Weight: < 15 Kg.

**Underwater Unit:**

Acoustic signals acquisition and A/D conversion.  
 Dimensions: 32 cm diameter and 85 cm length cylinder.  
 Weight: < 40 Kg.