

UAC-700M

Mechanical Scanning Sonar 700kHz



Overview

The mechanically scanned sonar is mainly used for detecting underwater targets. It can acquire target information within a 360° field of view and display data in real time for target recognition and other applications.

This sonar model is specially designed to be mounted on Unmanned Surface Vehicles (USVs), underwater robots (ROVs, AUVs, UUVs) and various other embedded carriers. It is applicable to underwater engineering inspection, emergency search & rescue, salvage and other fields. It adopts fully domestic hardware and software, and is compatible with Tritech sonar display & control software. In addition, an SDK package is available for deep integration scenarios to support user secondary development.

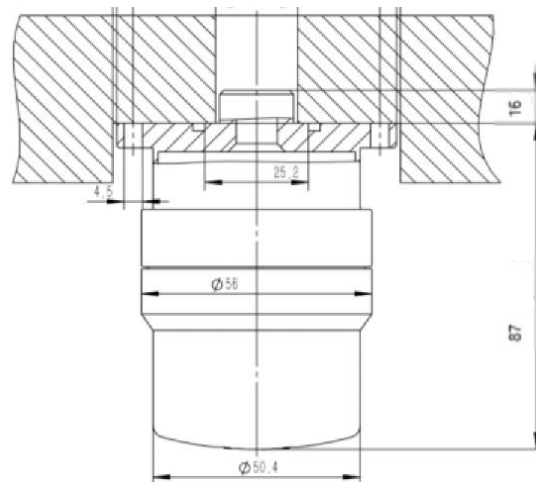
Technical Specifications

SPECIFICATIONS	
Operating Frequency	675–725 kHz
Scanning Angle	Maximum 360° (Scanning sector configurable: 45°, 90°, 135°, 180°, 360°)
Maximum Scanning Speed	10 s (5 m)
Effective Detection Range	60 m (-20 dB target, good hydrological conditions)
Beam Angle	Horizontal 3.3°±0.5°, Vertical 25°±1.5°
Step Angle	0.9°, 1.8°, 3.6°
Scan Rate	3 levels: Slow, Medium, Fast
Range Resolution	Min. 1.25 cm
Measurement Range	2–100 m
Maximum Operating Depth	300 m (customizable as required)
Points per Frame	400 points
Communication Interface	RS422; Baud rate: 115200
Power Supply / Power Consumption	24VDC, typical power 7W, max power 12W, wide voltage input 20~28VDC supported
Dimension	Φ70 mm×90 mm (cable-out version available)
Weight	400 g (in air)
Environmental Adaptability	Operating temperature -10°C ~50°C, storage temperature -40°C ~70°C
Software Development	Provide display and control software or SDK, support secondary development

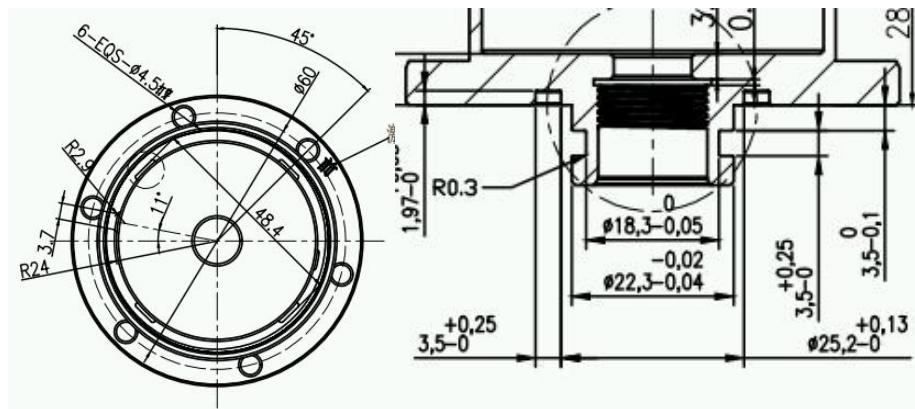
Application Scenarios

- Underwater engineering inspection
- Emergency search and rescue
- Salvage and recovery

Structural Dimensions



Bottom-Outlet Sonar Installation Schematic



Sonar Installation Interface Drawing