



### Technical brief

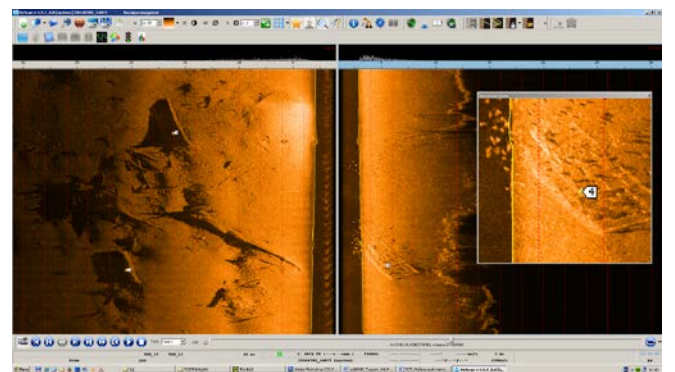
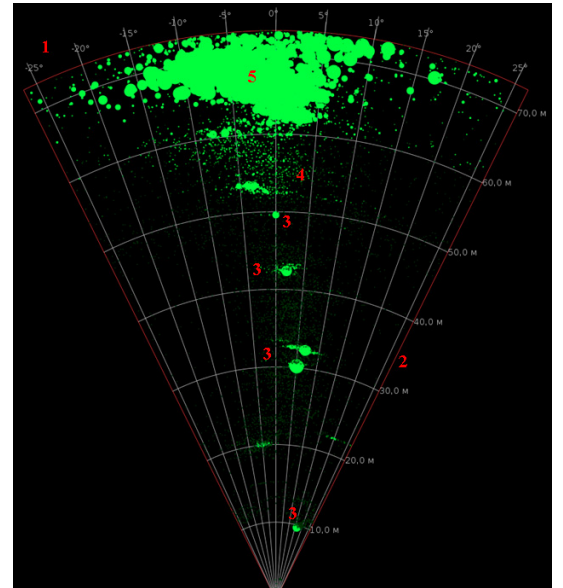
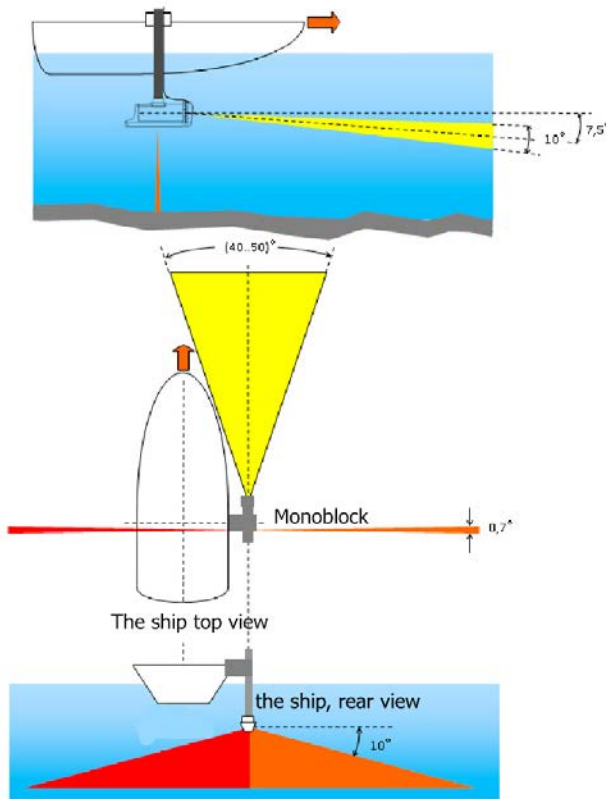


Hydra™ H5sf7 all-in-one high-resolution sidescan sonar (SSS) and forward looking sonar (FLS) for onboard mounting. It's suitable to search for sunken objects, monitoring of underwater infrastructures, fairways and harbors inspection in areas with depths up to 20 m. For wide range of users.

The use of modern technologies in acoustics and microelectronics have allowed the development of compact and efficient model. Compact narrow design allows you to place a locator at minimum depth on board of the ship using the rod  $d=30\text{ mm}$ .

Ultra-high distance resolution (1 cm) allows to search for objects and detection purposes. Using a frequency of 700 kHz, SSS provides real-time high-quality image of the bottom with photographic quality in a swath up to 230 m.

FLS can work at the same time with SSS and allows to detect objects (including small-sized), located in the water column during the movement of the vessel and other obstacles. Determining the direction and size of the object, FSL allows to evaluate the degree of danger and the way to bypass obstacles.



#### APPLICATION

- Areal monitoring
- Search for objects on the seabed, the water column
- Search & rescue operation
- Engineering & ecological monitoring

#### FEATURES

- Easily transportable – all in one case
- Wide swath
- Ultra high resolution imagery & wide swath
- Built-in angle sensors
- Use of simple accumulators
- Automatic setting for working conditions
- Long life source



## H5sf7 specification

### Basic kit

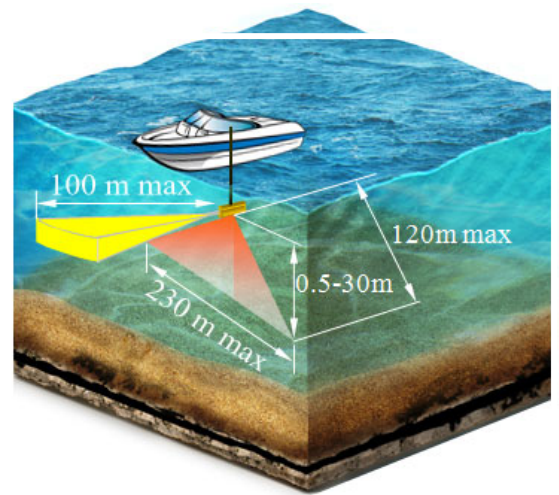
Monoblock	Electronic & transducer unit all-in-one with Ethernet cable, high-impact molded plastic black, cover antennas - polyurethane
Software	HyScan 5 (Windows 7/8/10, Linux) is using for scanning and viewing real-time data, recording and next playback, measurement parameters, data conversion for further processing.
Documentation	User manual, HyScan manual, quick start guide
Included accessories	Mounting kit Rugged transport & storage case

### Additional accessories and equipment, software

Power supplies	Auto accumulator 12V; Li-ion battery 12.6 V or 16.8 V Monoblock main adaptor Laptop adaptor
Sensors	GPS receiver
Built-in sensors	Heading (accuracy 2°); pitch, roll (accuracy: 0,2°)
Cables	Extenders, adaptors
Mounting	Mounting set for rubber boat
Integration	Mobile accessories set
Computer	Based PC or laptop
Software	Navigation, post processing

### Main parameters

Working frequency, kHz	540..840 ( Tone, CHIRP ) for SSS 360.. 440 ( Tone, CHIRP ) for FSL
Resolution, cm	1 cm ( by distance for SSS ) 3 cm ( by distance for FSS )
The directivity pattern, the angle of the antennas	50° ( vertical beam ) x 0,7° ( horizontal beam ); the angle of inclination 30° for SSS 50° ( horizontal beam ) x 10° ( vertical beam ), the angle of inclination 7,5° for FSL
Max. downrange, range SSS, slant range	Slant range – 120m on each board, up to 230 m total swath coverage
Max. the range of FSL	Up 70m
The detection accuracy of the target angle for FSL	5°
Power supply, W	1 approx. (idle) 2,5 approx. (tone scanning) 12 approx. (CHIRP scanning)
Weight, kg	0,5 (monoblock)
Dimensions, mm	200x75x75 (monoblock without cable)
Environmental	
Range of the surveyed depths, m	1..20 (SSS) 1..12 (FSL)
Scanning velocity knots	Up to 10
Roughness, points	Up to 3 (on-board mounting)
Temperature, °C	-10..+40 (working) -40..+50 (storage)



Hydra™ is registered trademark of Screen Co.Ltd.

Specifications may be changed without advance notice. For actual information please visit our website [www.hydrasonars.ru](http://www.hydrasonars.ru)



Zhukovsky city,  
Moscow region, Russia  
[www.hydrasonars.ru](http://www.hydrasonars.ru)  
[info@hydrasonars.ru](mailto:info@hydrasonars.ru)  
Tell/fax: +7-495-790-7178