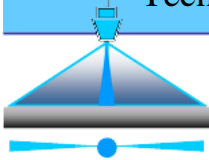




Technical brief



Hydra™ H5se3 compact sidescan sonar (SSS) with built-in echosounder (ES) for onboard mounting. It's suitable for sounding works, search of sunken objects, monitoring of underwater infrastructure in areas with depths up to 70 m.

For operating the SSS used a frequency of 300 kHz, providing real-time high-quality acoustic image of the bottom strip up to 550 m. An ES with a frequency of 700 kHz allows to perform measurements at depths up to 120 m with a resolution of 1 cm.

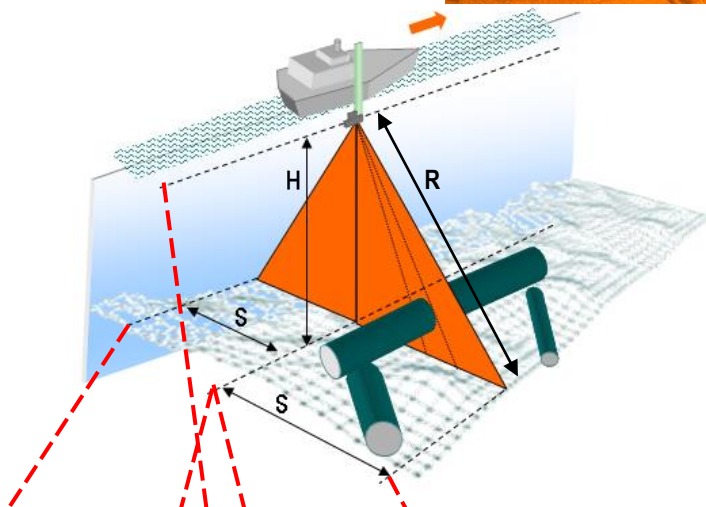
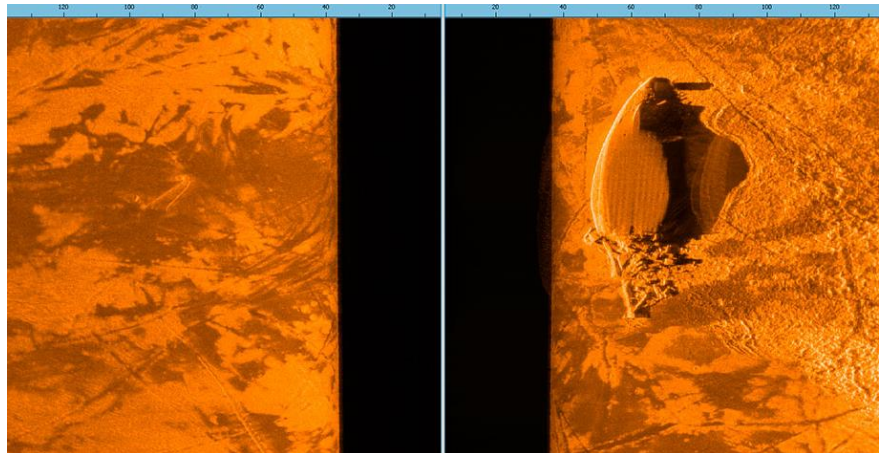
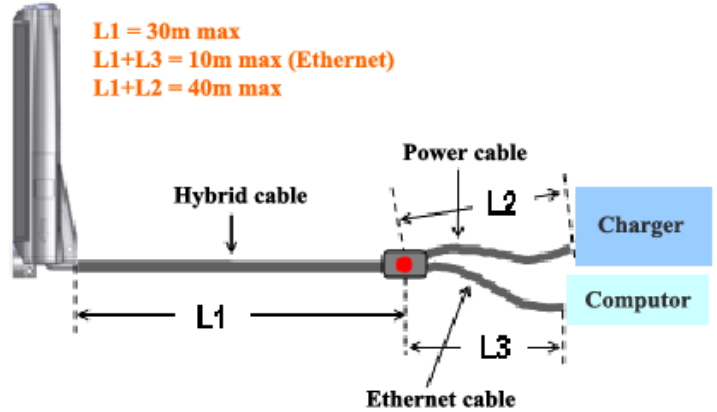
Built-in Li-ion battery allows you to work in offline mode up to 8 hours and also allows to obtain the output power of the radiation without losses in the wires of power, providing maximum possible bandwidths.

Sonar connects to PC compatible laptop with Windows (Ethernet port). The HyScan software is using for scanning and viewing real-time data, recording and next playback, measurement parameters, data conversion for further processing.

Small dimensions and weight allows to transport SSSE in small-size case. No-frills onboard installation using standard tools make work simple and comfort on any vessel.



Hydra™ is registered trademark of Screen Co.Ltd. (www.screen-co.ru).



$R=300\text{m max.}$
 $S=(3..10)*H$
 $2*S=550\text{m max.}$

FEATURES

- Easily transportable – all in one case
- Wide swath
- Built-in echosounder
- Built-in accumulators and angle sensors
- Long life source
- Automatic setting for working conditions



H5se3 short description

Basic kit

Monoblock	Electronic & transducer unit all-in-one with Ethernet cable.
Built-in sensors	Heading (accuracy 2°); pitch, roll (accuracy: 0,2°)
Built-in accumulators	Li-ion 25,2V/3,4A*h

Power supplies ~110..220V/47-63 Hz (when charging built-in batteries)

Software HyScan 4 (Windows 7/8/10), 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 Accumulator for laptop power
Laptop adapter
Charger for auto accumulator

Cables Extenders, adaptors

Sensors GPS receiver

Mounting Mounting set for rubber boat (inflatable or hard shell)

Integration Mobile set for sidescan sonar (SSS)

Computer Based PC or laptop

Software Navigation, post processing

Main parameters

Working frequency, kHz 216..375 (SSS)
640..780 (ES)

Mode Tone, CHIRP

Slant range resolution, cm 3,5 (by distance for SSS)
1 (by depth for echosounder)

The directivity pattern, the angle of the antennas SSS 50° (vertical beam) x 1,2° (horizontal beam) for SSS, the angle of inclination from 30° to 60° to the horizontal with a step of 7,5° (manual setting of tilt angle 5 positions, independently for each side. (3-6)° for ES

Max. downrange, range SSS Slant range – 300m on each board, up to 550m total swath coverage

Power consumption, W 2 approx. (idle)
350 max (beaming)
2,2 approx. (tone scanning)
12 approx. (CHIRP scanning)

Weight, g 1550 (monoblock in air)
3500 (monoblock SSSE in the case)

Dimensions, mm 381x88x63 (monoblock)
400x300x110 (Rugged transport & storage case)

Environmental

Deepening, m Up to 5

Range of the surveyed depths, m 2..70 (SSS), 1..120 (SSSE)
It's possible to increase the examined depth by reducing the swath width

Survey velocity knots Up to 10

Roughness, points Up to 3

Temperature, °C -10..+40 (working)
-40..+50 (storage)

