Hydra™ H5se1, H5s1 are compact sidescan sonars (SSS) with built-in echosounder (ES) and without it (H5s1) for onboard mounting. It's suitable for sounding works, search of sunken objects, monitoring of underwater infrastructure in areas with depths up to 300m.
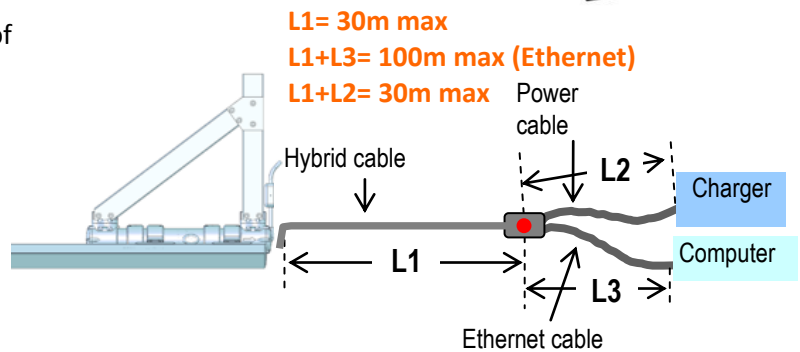
For operating sidescan sonar used a frequency of 100 kHz, providing real-time high-quality acoustic image of the bottom strip up to 2000 m. The echosounder with a frequency of 400 kHz allows to perform measurements at depths up to 400 m with a resolution of 1 cm. Built-in Li-ion battery allows you to work up to 8 hours and also allows to obtain the maximum output power of the radiation without losses in the wires of power, providing maximum possible bandwidths.

SSSE 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.

Length of 650mm and a weight of 5 kg allows to transport SSSE in small-size case. No-frills onboard installation using standard tools make work simple and comfort on any vessel.
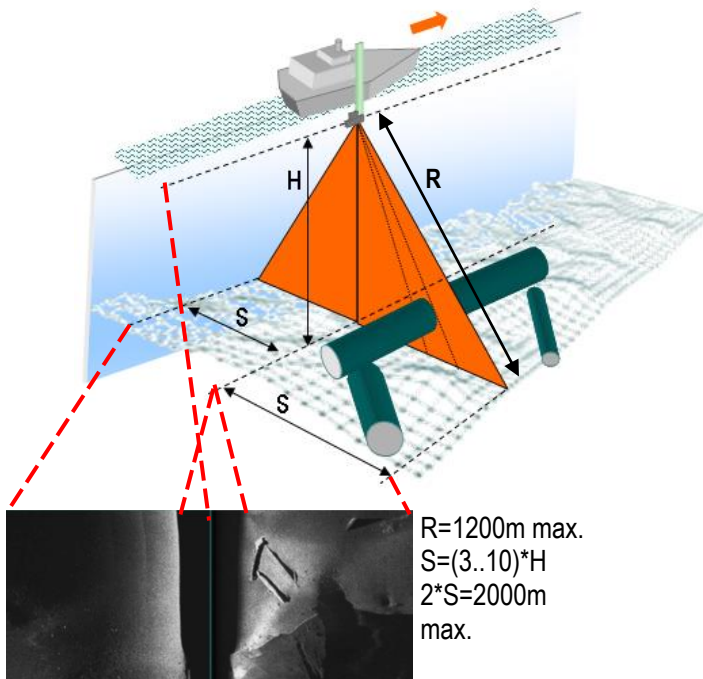
Hydra™ is registered trademark of Screen Co.Ltd. (www.screen-co.ru).

L1= 30m max
L1+L3= 100m max (Ethernet)
L1+L2= 30m max

Power cable
Hybrid cable
L2
Charger
L1
Computer
L3
Ethernet cable

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

H
R
S
S

R=1200m max.
S=(3..10)*H
2*S=2000m max.

H5se1, H5s1 short description

Basic kit

Monoblock	Electronic & transducer unit all-in-one with Ethernet interface.
Built-in sensors	Heading (accuracy 2°); pitch, roll (accuracy: 0,2°)
Built-in accumulators	Li-ion = 25,2V/6,8A*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

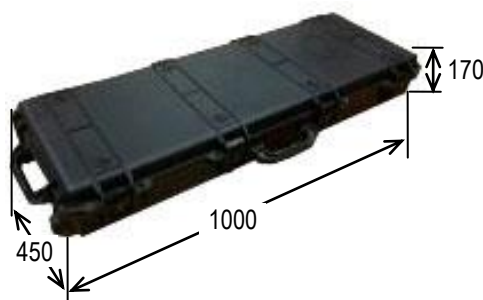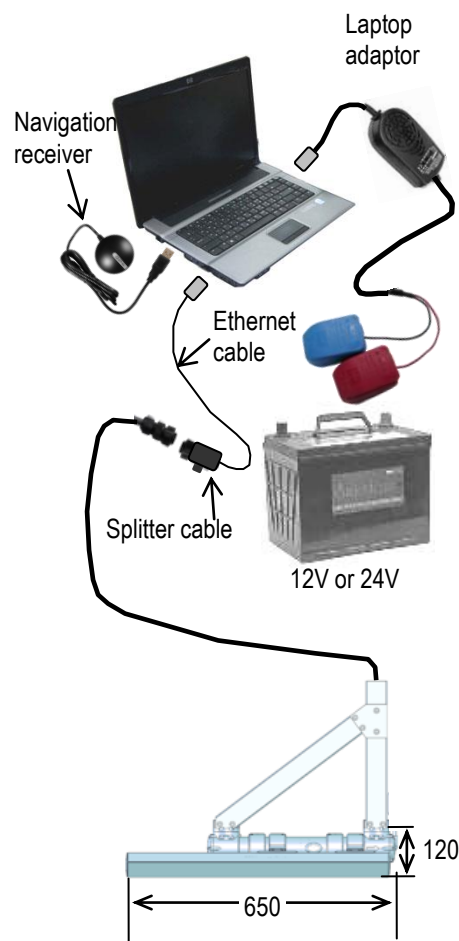### Additional accessories and equipment, software

Power supplies	Accumulator for laptop power Laptop adaptor Chargers
Cables	Extenders, adaptors
Sensors	GPS receiver
Mounting	Mounting set for boat (inflatable or hard shell)
Integration	Operator's workplace
Computer	Based PC or laptop
Software	Navigation, post processing

Main parameters

Working frequency, kHz	76..116 (SSS) 360..440 (ES) for H5se1
Mode	Tone, CHIRP
Slant range resolution, cm	7,5 (by distance for SSS) 3 (by depth for ES)
The directivity pattern, the angle of the antennas SSS	50° (vertical beam) x 2,5° (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 – 1200m on each board, up to 2000m total swath coverage
Power supply, W	2 approx. (idle) 500 max (beaming) 5 approx. (tone scanning) 20 approx. (CHIRP scanning)
Weight, Kg	5 (monoblock in air) 11 (monoblock SSSE in the case)
Dimensions, mm	650x170x120 (monoblock) 1000x450x170 (Rugged transport & storage case)

Environmental

Deeping, m	Up to 5
Range of the surveyed depths, m	5..300 (SSS), 1..400 (SE) It's possible to increase the examined depth by reducing the swath width
Scanning velocity, knots	Up to 10
Roughness, points	Up to 3
Temperature, °C	-10..+40 (working) -40..+50 (storage)

Laptop adaptor

Navigation receiver

Ethernet cable

Splitter cable

12V or 24V

120

650

170

1000

450

ЭКРАН
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