

M3 Sonar® PHS



KONGSBERG

Shallow-water portable hydrographic survey system

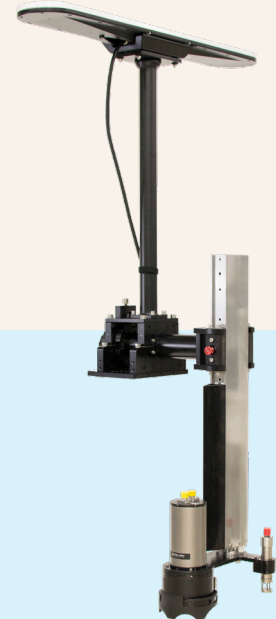
The M3 Sonar PHS is a powerful, affordable, entry-level turnkey survey system that ships as a complete package: a compact multibeam head, a convenient topside interface unit, and all required sensors pre-integrated for rapid deployment. It's designed for fast, plug-and-play setup and takedown on small vessels or USVs, minimizing mobilization time while maximizing on-water productivity.

Built on the field-proven M3 Sonar multibeam platform, the M3 Sonar PHS supports IHO Special Order and Order 1A/Order 1 vertical-accuracy compliance across a wide swath, enabling confident results in demanding shallow-water surveys. Target detection performance meets Special Order 1 m-cube detection to 20 m and Order 1A 2 m-cube detection to 40 m, providing clear, consistent measurements for critical survey and inspection tasks.

Operating at 500 kHz with up to 256 beams and a 120° swath, the M3 Sonar delivers fine angular resolution and rapid update rates for high-quality bathymetric and imaging data in the 0.2–50 m depth range. Its advanced signal processing supports CW and FM (CHIRP) pulse forms, balancing clarity and coverage for efficient data collection in ports, waterways, and near-shore environments.

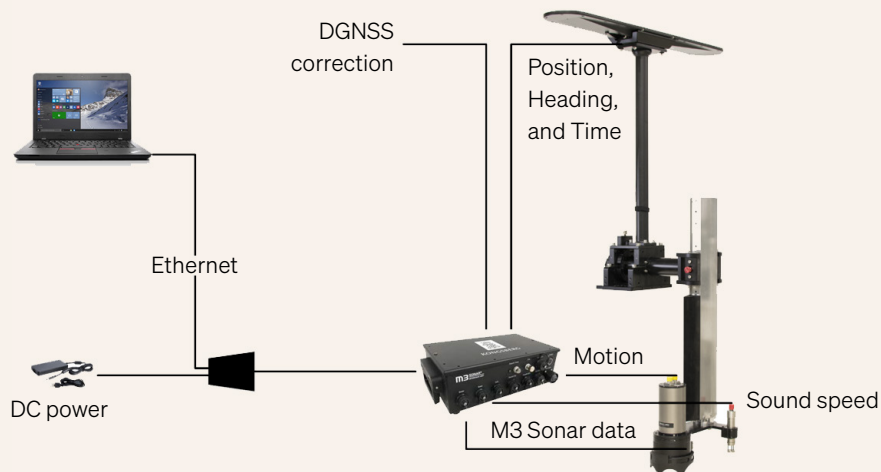
The M3 Sonar PHS is preconfigured with survey acquisition and processing software and operates seamlessly with HYPACK® HYSWEEP® and QINSy, so teams can plug in, calibrate, and start collecting quality data without re-tooling their workflow.

Typical applications include port and harbour inspections, dams and intake surveys, bridge pier and dock inspections, shallow-water bathymetry, outfall and pipeline surveys, and dredge monitoring—all tasks where fast setup, reliable data, and compact hardware are essential.



FEATURES

- Turnkey shallow-water hydrographic system
- Fast, plug-and-play setup and takedown
- IHO Special Order & Order 1A/Order 1 vertical-accuracy compliance
- Proven M3 Sonar multibeam technology
- Seamless integration with third-party survey software
- Compact GNSS/INS capability



Technical specifications

M3 Sonar® PHS (PKG-PHS-M3-SVS)

M3 Sonar® with integrated sound velocity sensor



Operating frequency:	500 kHz
Depth range:	0.2 – 50 m
Swath width:	120°
Beam widths:	TX 3°, RX 1.6°
Number of beams:	up to 256
Pulse form:	CW & FM
Effective pulse length:	10 µs - 10 ms

The M3 Sonar has a maximum ping rate of 40 Hz. It weighs 1.8 kg in water and 4.7 kg in air. Its construction incorporates hard-anodized aluminium, stainless steel 316, and elastomeric polyurethane.

M3 Sonar® Interface Unit

The splashproof deck unit acts as a junction box and provides power for all external sensors, including the Sonar Head, for easier cable management and portability.



Seapath 130 Series



Compact Integrated INS/GNSS Heading, Attitude and Positioning Sensor with antennas and receivers. No accuracy degradation in roll, pitch and heave measurements during turns; 120 channel dual frequency GPS/GLONASS receiver, RTK, SBAS correction; can support Omnistar and Marinestar.

Seapath 130-3 (with MRU-3) to 0.08° roll & pitch accuracy
Seapath 130-H (with MRU-H) to 0.03° roll & pitch accuracy

Seatex MRU-3



Angle Resolution 0.001°, Heave Accuracy of 5 cm or 5%, Acceleration Accuracy of 0.02 m/s² RMS, Heave range ±50 m, Angle range Roll/Pitch ±45°, Acceleration range ±50 m/s², Stainless steel or anodized aluminum housing, Temperature range -5°C to +55°C, IP 68

Seatech MRU-H

Angle Resolution 0.001°, Heave Accuracy of 5 cm or 5%, Acceleration Accuracy of 0.01 m/s² RMS, Heave range ±50 m, Angle range Roll/Pitch ±180°, Acceleration range ±30 m/s², Stainless steel or anodized aluminum housing, Temperature range -5°C to +55°C, IP 68

Sound Velocity Sensor

The ML-3 SVP 500 m model features a 500-meter depth rating and comes equipped with integrated Wi-Fi, integrated GPS, an integrated shackle, and is supplied with its own equipment case.



Pole Mount (USM Compact)



Over the side compact shear block pole mount with calibrated breakaway design and GNSS mast pole 36" length, anodized aluminum. Z pole Hydrofoil shaped with 60" length (other lengths and various options available on request). Includes M3 Sonar flange to mount sonar head, MRU and speed sound sensor, and base plate with Hinge kit.

Photos are for illustrative purposes only. Specifications subject to change without any further notice.