

K KNUDSEN

Mini

SOUNDER



**SOUNDER
SERIES**

Proudly Made
In CANADA





Mini SOUNDER



Knudsen Sounder Systems are the next benchmark in survey echosounders. The affordable MiniSounder Sounder is industry unique in both compact size and performance. Less than 3 kg. in weight, the system incorporates the latest in digital signal processing technology and includes Knudsen SounderSuite Windows application software for easy interface to your computer via a USB connection. The MiniSounder is ideal for easy transport to changing project sites, and is well suited for quick deployment on small survey platforms in open air environments.

Available only in a single channel configuration but with a wide frequency range, the MiniSounder also offers the flexibility of using more than one MiniSounder together (up to 4) simultaneously within one user application. An attractive low cost, easy portability, and expandable design architecture make the MiniSounder an excellent choice for any project.

Technical Specifications: *(subject to change without notice):*

Available Channels

- Single channel only

Frequency

- 24kHz - 210kHz

Output Power

- Up to 1kW

Input Power

- 12-30 VDC

Pulse Length

- Up to 4ms

Gain

- Manual, automatic (AGC), and time varied (TVG)
- 96db range of programmable analog gain

Ranges

- 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000

Phasing

- Manual and automatic (up to 50% overlaps)

Units

- Meters, Feet, or Fathoms

Resolution

- 1cm (0-99.99), 1dm (100-999.9), 1m (>1000)
- 1/100ft (0-99.99), 1/10ft (100-999.9), 1ft (>1000)
- 1/100fm (0-99.99), 1/10fm (100-999.9), 1fm (>1000)

Sound Velocity

- 1300 - 1800 m/s Resolution 1m/s
- 4265 - 5906 ft/s Resolution 1ft/s
- 710 - 984 fm/s Resolution 1fm/s

Draft

- 0-100m Resolution 1cm
- 0-328ft Resolution 0.01ft
- 0-54fm Resolution 0.01fm

Interface

- USB 2.0 Full Speed (12Mbps)

Output Data

- Full resolution envelope data in KEB binary format and XTF (for sidescan only)
- User configurable ASCII digital depth strings

Dimensions

- 257mm (10.1") x 158mm(6.2") x 89mm (3.5")

Weight

- less than 3kg (7lbs)

Installation

- Desktop or Bulkhead

Operating Temperature

- 0 - 50°C

Additional Features

- Frequency agility on all channels
- Built-in drivers for all popular GPS
- Built-in test signal generator
- Compatible with industry standard dataloggers and processing software (Hypack, QINSy, SonarWiz)
- Heave compensated echogram

Options

- Sidescan option
- Network option for multiple PC operation
- Remote Display Indicators
- EchoSim Sonar Signal Simulator

SounderSuite Software (Included)

- Compatible with Windows Vista or higher
- Easy to use Graphical User Interface (GUI)
- Postsurvey Display and Printing Software
- Large Digitized Depth Display
- Print to standard Windows printers

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SOUNDER **PORTABLE SERIES**



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SOUNDER PORTABLE SERIES



Knudsen Sounder Systems are the next benchmark in survey echosounders. The Sounder Portable system incorporates the latest in digital signal processing technology and includes Knudsen SounderSuite Windows application software for easy interface to your computer via a USB connection. The unit, housed in a lightweight, rugged, splashproof case, is ideal for easy transportation to changing project sites, and quick deployment on small survey platforms in open air environments

Available in a 2 or 4 channel configuration, the versatile system is particularly well suited to multiple survey roles and includes a wide range of standard shallow water bathymetry and sidescan frequencies.

Technical Specifications: *(subject to change without notice):*

Available Channels

- Sounder 1612: up to 2 channels
- Sounder 1614: up to 4 channels

Frequency

- All channels: 24kHz - 210kHz
(12kHz option available)

Output Power

- Up to 1kW per channel

Input Power

- 12-30 VDC

Pulse Length

- Up to 4ms

Gain

- Manual, automatic (AGC), and time varied (TVG)
- 96db range of programmable analog gain

Ranges

- 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000

Phasing

- Manual and automatic (up to 50% overlaps)

Units

- Meters, Feet, or Fathoms

Resolution

- 1cm (0-99.99), 1dm (100-999.9), 1m (>1000)
- 1/100ft (0-99.99), 1/10ft (100-999.9), 1ft (>1000)
- 1/100fm (0-99.99), 1/10fm (100-999.9), 1fm (>1000)

Sound Velocity

- 1300 - 1800 m/s Resolution 1m/s
- 4265 - 5906 ft/s Resolution 1ft/s
- 710 - 984 fm/s Resolution 1 fm/s

Draft

- 0-100m Resolution 1cm
- 0-328ft Resolution 0.01ft
- 0-54fm Resolution 0.01fm

Interface

- USB 2.0 Full Speed (12Mbps)

Output Data

- Full resolution envelope data in KEB binary format and XTF (for sidescan only)
- User configurable ASCII digital depth strings

Dimensions

- 488mm (19.2") x 386mm (15.2") x 185mm (7.3")

Weight

- Sounder 1612: 9kg (20lbs)
- Sounder 1614: 11kg (24lbs)

Installation

- Splash-proof case

Operating Temperature

- 0 - 50 °C

Additional Features

- Frequency agility on all channels
- Built-in drivers for all popular GPS
- Built-in test signal generator
- Compatible with industry standard dataloggers and processing software (Hypack, QINSy, SonarWiz)
- Heave compensated echogram

Options

- Sidescan option
- Network option for multiple PC operation
- Remote Display Indicators
- EchoSim Sonar Signal Simulator

SounderSuite Software (included)

- Compatible with Windows Vista or higher
- Easy to use Graphical User Interface (GUI)
- Postsurvey Display and Printing Software
- Large Digitized Depth Display
- Print to standard Windows printers



SOUNDER RACK SERIES

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SOUNDER RACK SERIES



Knudsen Sounder Systems are the next benchmark in survey echosounders. The Sounder Rack system incorporates the latest in digital signal processing technology and includes Knudsen SounderSuite Windows application software for easy interface to your computer via a USB connection. The unit, housed in a 3U rackmount case, is ideal for quick installation to a standard equipment rack on your survey platform.

Available in a 2 or 4 channel configuration, the versatile system is particularly well suited to multiple survey roles and includes a wide range of standard shallow water bathymetry and sidescan frequencies.

Technical Specifications: *(subject to change without notice):*

Available Channels

- Sounder 1602: up to 2 channels
- Sounder 1604: up to 4 channels

Frequency

- All channels: 24kHz - 210kHz
(12kHz option available)

Output Power

- Up to 1kW per channel

Input Power

- 12-30 VDC

Pulse Length

- Up to 4ms

Gain

- Manual, automatic (AGC), and time varied (TVG)
- 96db range of programmable analog gain

Ranges

- 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000

Phasing

- Manual and automatic (up to 50% overlaps)

Units

- Meters, Feet, or Fathoms

Resolution

- 1cm (0-99.99), 1dm (100-999.9), 1m (>1000)
- 1/100ft (0-99.99), 1/10ft (100-999.9), 1ft (>1000)
- 1/100fm (0-99.99), 1/10fm (100-999.9), 1fm (>1000)

Sound Velocity

- 1300 - 1800 m/s Resolution 1m/s
- 4265 - 5906 ft/s Resolution 1ft/s
- 710 - 984 fm/s Resolution 1 fm/s

Draft

- 0-100m Resolution 1cm
- 0-328ft Resolution 0.01ft
- 0-54fm Resolution 0.01fm

Interface

- USB 2.0 Full Speed (12Mbps)

Output Data

- Full resolution envelope data in KEB binary format and XTF (for sidescan only)
- User configurable ASCII digital depth strings

Dimensions

- 533mm (21") x 483mm (19") x 133mm (5.25")

Weight

- Sounder 1602: 9kg (20lbs)
- Sounder 1604: 10kg (22lbs)

Installation

- 3U Rackmount case

Operating Temperature

- 0 - 50 °C

Additional Features

- Frequency agility on all channels
- Built-in drivers for all popular GPS
- Built-in test signal generator
- Compatible with industry standard dataloggers and processing software (Hypack, QINSy, SonarWiz)
- Heave compensated echogram

Options

- Sidescan option
- Network option for multiple PC operation
- Remote Display Indicators
- EchoSim Sonar Signal Simulator

SounderSuite Software (included)

- Compatible with Windows Vista or higher
- Easy to use Graphical User Interface (GUI)
- Postsurvey Display and Printing Software
- Large Digitized Depth Display
- Print to standard Windows printers