

DS100A

SinglBeam Survey Grade Echo Sounder System



SWEGEO

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Swegeo DS100 is a compact, easy-to-use survey-grade single-beam echo sounder with an operational depth ranging from 0.4 to 100 meters. It provides standard depth string streams in \$SDDPT, \$SDDBT, and \$YXMTW at 1 Hz, 4800 bps that makes DS100A compatible with any Hydrographic Surveying Software suits

Features

With the dimensions of 148 x 109 x 24 mm and a weight of <450 grams, it fits the environment where survey-grade hydrographical mapping is needed.

DS100A has been built to withstand harsh environments. It meets the IP67 standard against dust and water. Metal housing contains an internal structure that resists impacts.

Running DS100 is as simple as pressing a button. Powering the device on is enough to see the depth stream from hydrographical software.

With its extensive battery life of >20 hours, no matter how long the daily operation takes, or no matter what the weather conditions are, DS100A keeps producing depth data with cm accuracy.

The development of DS100 has been based on inputs from geospatial professionals, in combination with Swedish engineering know-how and genuine knowledge in function and quality.



SWEGEO DS100 Depth Echo Sounder

Portable Depth Sounding System with built-in Multi-Frequency RTK GNSS

Two in One. SWEGEO DS100 is a pocket-size modular RTK GNSS receiver that converts any Android or Windows-based field computers into a high-accuracy positioning system and compact survey grade depth sounder with operational depth ranging from 40 cm to 100 meters. It provides standard depth string streams in \$SDDBT, \$SDDBT and \$YXMTW at 1Hz, 4800 bps which makes the DS-100 compatible with any Hydrographic Surveying Software package.

Multi Constellation. DS100 is capable of tracking and processing multiple constellation/frequencies of GNSS satellites and depth data. This enables it to reach centimeter-level accuracy within a few seconds.

Pocket Size. With its dimensions of 309 x 152 x 71 mm and weight of <500 grams, it fits all the environments where the centimeter level of accuracy is needed.

Rugged. DS100 has been built to withstand harsh environments. It meets the IP67 standards against dust and water. Metal housing contains an internal structure that resists the impacts.

Simple Operation. Running DS100 is as simple as pressing the power button. It doesn't require any special setup but sending RTK corrections in any format via Bluetooth. It automatically decodes/applies the corrections and sends NMEA messages and depth data is logged to any external logging device running compatible software.

NMEA/Geolocation. DS100 is a highly competent GNSS receiver. It compatible with any NMEA or Geolocation software that provides high accuracy positioning.

Long Battery Life. With its extensive battery life of >20 hours, no matter how long the daily operation takes, or no matter what the temperature conditions are, DS100 keeps producing RTK position information and depth data with cm accuracy.

Swedish Engineering. The development of DS100 has been based on inputs from geospatial professionals, in combination with Swedish engineering know-how and genuine knowledge in function and quality.

Mechanical Specification

Dimensions	: 309 mm x 152 mm x 71 mm
Weight	: 485 grams
Water/Dust	: Classification IP67
External Power	: Connector - USB

Sonar Transducer Specification

Beamwidth	: 9°
Depth Range	: 0.4 m to 100 m
Resolution in Depth	: 0.01 m
Ping Frequency	: 200 kHz
Data Output Rate	: 1 Hz

GNSS Specification

Type	: Multi-band GNSS high precision receiver
Tracking	: GPS (L1 C/A, L2C) GLONASS (L1OF, L2OF) GALILEO (E1-B/C, E5b) BEIDOU (B1, B2I) QZSS (L1 C/A, L1S, L2C) SBAS (L1 C/A)
Accuracy	: 1cm+1ppm (CEP)
Channels	: 184 Channel
Antenna Options	: Survey or Helical

Electrical Specification

Input Voltage	: 5V 2A DC (via USB)
Battery Time	: ~20 h
Operating Current (Average)	: 300 mA
Battery Capacity	: 7800 mAh
Max Charge Current (internally limited)	: 2000 mA
Battery Current While in Off State	: 1 mA

Serial Interface Specification

Serial Interfaces	: Bluetooth, USB
Correction	: RTCM 3.0, 3.1, 3.2, 3.3, MSM (Auto Decoding)
NMEA	: Up to 10 Hz, 0183 Standard
Bluetooth®	: SPP
Data Format (both USB and Bluetooth®)	: 4800 baud, 8 bits, 1 stop bit, no parity.



Specifications subject to change without notice.

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