



► General & Applications

- First / latest product generation: 2017 / 2022
- Small boats and vehicles, in- and near shore
- Integration into USV and ASV of all scales
- Remotely controlled and autonomous operation

► Performance

- Water depth range: 0.5–100 m
- Seabed penetration: up to 20 m (depending on seabed type and noise)
- Range resolution: up to 8 cm (depending on pulse settings)
- Depth accuracy: 2.5 cm + 0.1% water depth
- Motion compensation: Heave (external sensor data required)

► Transmitter

- Principle: parametric (nonlinear) acoustics
- Frequencies: 100 kHz (HF) / 10 kHz (LF)
- Primary Source Level: >235 dB/ μ Pa re 1m
- Acoustic Power: c. 2 kW
- Beam width: c. 5° ($\pm 2.5^\circ$) for all frequencies
- Pulse type: CW, Ricker
- Pulse width: 0.07–0.5 ms
- Pulse rate: up to 40 Hz

► Data Acquisition

- Digital, 2 channels (LF and HF, "RAW" format)
- Sample rate c. 70 kHz @ 16 bit; resolution <2 cm
- LF sub-bottom data: raw (full-waveform)
- HF data: processed (envelope)

► System Components

- Deck unit (transceiver electronics):
Housing water-proof plastic case (IP65)
W 47 cm × D 36 cm × H 17 cm / c. 9 kg
- Transducer (no depth rating):
W 27 cm × D 21 cm × H 6 cm / c. 10 kg (w/ cable)
cable length 15 m, moulded to transducer
- System control PC (not included):
MS Windows® based

► Optional Features

- Water-proof Subconn® transducer connector
- Transducer mounting kit with shock absorbers
- External AC power adapter (100–240 V AC)
- SESWIN extended remote-control

► Power Supply Requirements

- 12 / 24 V (10–30 V) DC
- Power consumption: typ. 50 W / max. 100 W
- Power-on inrush current: max. 15 A

► Software

- SESWIN data acquisition software
- SES-Convert SEG-Y/XTF data export
- SES-NetView remote display
- ISE post-processing software (option)

