Innomar deep-36

Parametric Sub-Bottom Profiler

A **NORBIT** Company

General & Applications

- First / latest product generation: 2007 / 2024
- Offshore route and site surveys

Performance

- Water depth range: 5–6,000 m
- Seabed penetration: up to 150 m (depending on seabed type and noise)
- Range resolution: up to 15 cm (depending on pulse settings)
- Depth accuracy: 5 cm + 0.04% water depth
- Motion compensation: Heave, Roll or Pitch (beam forming at transmit and receive; external sensor required)

Transmitter

- Principle: parametric (nonlinear) acoustics
- Frequencies: 36 kHz (HF) / 2–7 kHz (LF)
- Primary Source Level: >246 dB//µPa re 1m
- Acoustic Power: c. 9 kW
- Beam width: c. 3° (±1.5°) for all frequencies
- Pulse type: CW, Ricker, FM Chirp
- Pulse width: 0.15–1.5 ms (CW), 5 ms (chirp)
- Pulse rate: up to 40 Hz, multi-ping mode

Data Acquisition

- Digital, 2 channels (LF and HF, "SES3" format)
- Sample rate 96 kHz @ 24 bit; resolution <1 cm
- LF sub-bottom data: raw (full-waveform)
- HF data: processed (envelope)

System Components

- Deck unit (transceiver electronics, IP20):
  Housing 19 inch / 19 U, desktop
  W 52 cm × D 50 cm × H 50 cm / c. 56 kg
- Transducer (2 sections w/ frame, no depth rating):
  W 88 cm × D 92 cm × H 18 cm / c. 245 kg
  (w/o cables), cable length 30 m (moulded)
- System control & data acquisition PC:
  MS Windows® based

Optional Features

- Roll **AND** Pitch compensation
- Water-proof transducer cable inline connections
- Different cable length (20–50 m)
- 10" TFT display built into topside unit
- SESWIN extended remote control

Power Supply Requirements

- 100–240 V AC (fuse 16 A slow)
- Power consumption: typ. 500 W / max. 900 W
- Power-on inrush current: c. 25 A

Software

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

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