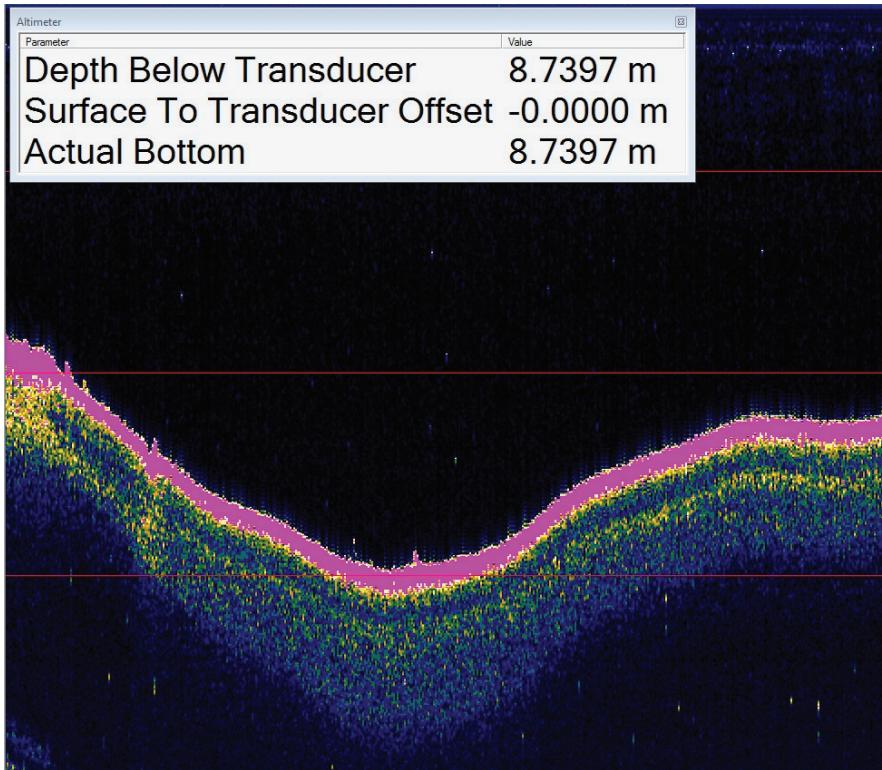


ALTIMETERS



KONGSBERG



Altimeter display in MS 1000 mode



1007D Series Altimeters (6000m & 3000m)

October 2015

HIGH-RESOLUTION ALTIMETERS FOR DEEP OCEAN APPLICATIONS

The 1007D Series underwater altimeters are ideally suited for deep ocean applications and are primarily used on underwater vehicles (ROVs and AUVs). Various depths and frequencies are available to suit different applications.

A global leader in the underwater acoustic industry, Kongsberg has an international support, training as well as application and data interpretation.

FEATURES

- Robust design
- MS 1000/Express capability
- Easily configurable analog/digital outputs
- Three depth ratings: 3000m, 6000m and 11000m

APPLICATIONS

- ROV/AUV altitude
- Obstacle avoidance
- Positioning
- Below surface monitoring

OPERATING MODES

Upon power-up, the altimeter scans its telemetry interface to detect MS 1000 or ALTCONFIG modes. If neither is detected, the altimeter goes into one of the factory configured default modes.

807 Mode

- operates in standalone mode with analog output interface
- resolution and maximum range are set to fixed factory-default settings

808 Mode

- RS232 telemetry
- resolution and maximum range are set to fixed factory-default settings

809 Mode

- RS232, RS485 and RS422 telemetry
- resolution and maximum range are set to fixed factory-default settings

MS 1000 Mode

- controlled by MS 1000 processing software via PC and automatically detects telemetry (RS232 and RS485)
- operating settings are adjustable

SPECIFICATIONS OVERVIEW

PARAMETER	OPERATING FREQUENCY			
	120 kHz	200 kHz		675 kHz
Conical beamwidth (typical):	15°	3°	10°	2.7°
Source level (typical): <i>dB re μPa @ 1m</i>	211	228	209	217
Receive bandwidth (max):	12 kHz	20 kHz	20 kHz	28 kHz
Maximum sampling rate:	307.2 kHz			
Sample memory size:	16,000 samples per ping			
Maximum resolution:	2.4 mm (depending on range)			
Minimum range:	1.00 m	0.60 m		0.30 m
Maximum acoustic detection range: (sea/fresh water)				
Gravel bottom (TS= -20dB)	600 m / 2250 m	600 m / 1400 m	420 m / 925 m	125 m / 145 m
Sand bottom (TS= -30dB)	475 m / 1600 m	500 m / 1150 m	330 m / 700 m	105 m / 120 m
Mud bottom (TS= -40dB)	360 m / 1100 m	410 m / 900 m	240 m / 475 m	85 m / 95 m
Depth rating:	3 km, 6 km or 11 km (depending on operating configuration)			
Housing materials:	Aluminum or Titanium (depending on application/depth)			
Temperature range (max):	-10° to +50°			
Supply voltage:	24 VDC \pm 10%			
Operating current (typical):	0.25 A			
Start-up current (max):	1.0 A			
Output:	analog and/or digital			
Auxiliary serial output:	optional (RS232 interface, uplink only)			
Hold-off Input:	optional for external ping rate control (TTL levels)			

TECHNICAL SPECIFICATIONS

All 1007D Series altimeters have their parameters factory configured to operate within the specified acoustic detection range. The default settings are listed on the specification sheet.

- For standalone altimeters configured with analog output only (**807 mode**) no field re-configuration option is available.
- For standalone altimeters configured with a digital telemetry interface (**808, 809 or MS 1000 modes**), the default factory configuration settings can be changed by loading a re-configuration file using the ALTCONFIG software.
- When configured in 809 mode the default altimeter operational settings can be temporarily changed during operation by sending new new commands.
- The units operating in MS 1000 mode have their operating parameters controlled by the MS 1000 software.

Specifications subject to change without any further notice.