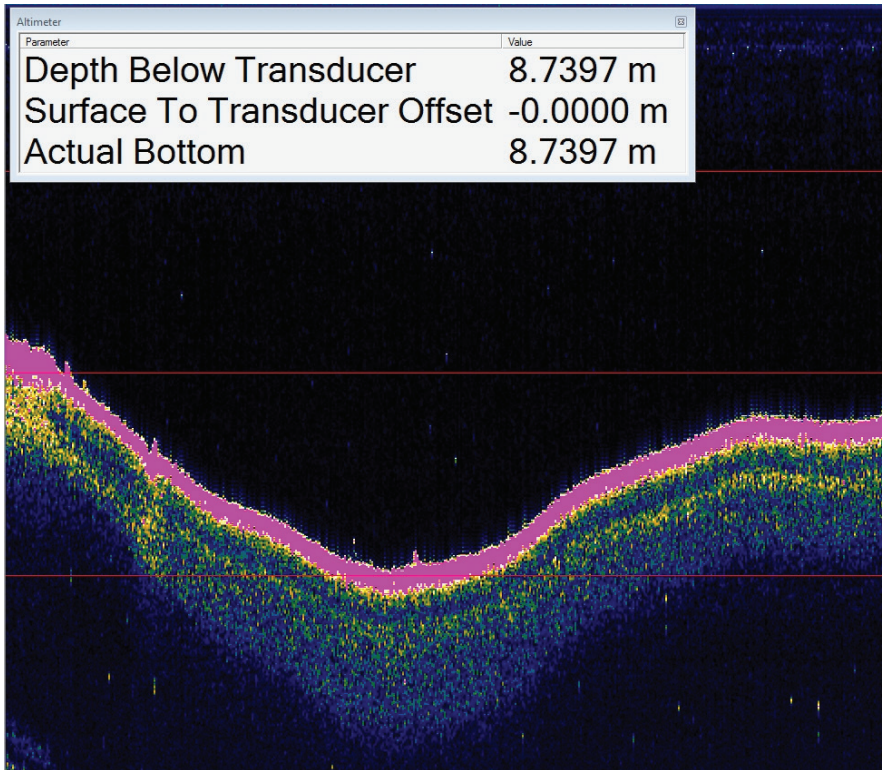


# ALTIMETERS



KONGSBERG



Altimeter display in MS 1000 mode



1107 Series Altimeters (6000m & 3000m)

May 2019

## HIGH-RESOLUTION ALTIMETERS FOR DEEP OCEAN APPLICATIONS

The 1107 Series underwater altimeters are ideally suited for deep ocean applications and are primarily used on underwater vehicles (ROVs and AUVs). Various depth ratings and frequencies are available to suit different applications.

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

### FEATURES

- Robust design
- MS 1000/Express compatibility
- Easily configurable analog/digital outputs
- Three depth ratings: 3Nm, 6Nm and 1Nm

### 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 max range are set to 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 <math>\mu</math>Pa @ 1m</i>	211	228	209	217
Receive bandwidth (max):	Function of selected range			
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 application/depth)			
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 1107 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 notice.*