ECHO 81

YOUR SUBSEA SOLUTIONS SPECIALIST

KONGSBERG

EA440 & EA440SP

HYDROGRAPHIC ECHO SOUNDER

EA440 is a high performance hydrographic wide band single beam echo sounder. The echo sounder is developed for hydrographic use in shallow to medium depth waters. It supports portable and hull mounted sidescan and sub-bottom light for shallow waters.

The EA440SP is a splash proof version of the standard EA440, making it the perfect potable echo sounder for surveying in shallow depth in small & open boats.

EA440

EA440SP

The Wide Band Transceiver - WBT

• The 4-channel standard WBT transmits and receives data simultaneously on 4 channels, ranging from 10 kHz to 500 kHz. The channels can be configured in a variety of ways, allowing for different applications and/or redundancy.

• The WBT communicates with a standard Windows 10 computer running the EA440 software via an ethernet link. Several WBTs with different configurations can be used.

• The WBT is opened for applicable transducers using license management. Licenses can be added by the user by a license code provided by Kongsberg Maritime Support.

• The WBT is powered by a 12-15 VDC power supply.

• Wide band frequency sweep (FM) in combination with advanced signal processing gives an exceptionally good signal to noise ratio and range resolution.

The Software

The EA440 software is an intuitive and user-friendly software. You can set up the display to suit your special needs. You can choose different presentations on the screen for echograms, map view, digital depth and other features. Save user settings for different operations and you can use these at your ease.

Technical Specifications

Position & Heading
EA440 splash proof setup

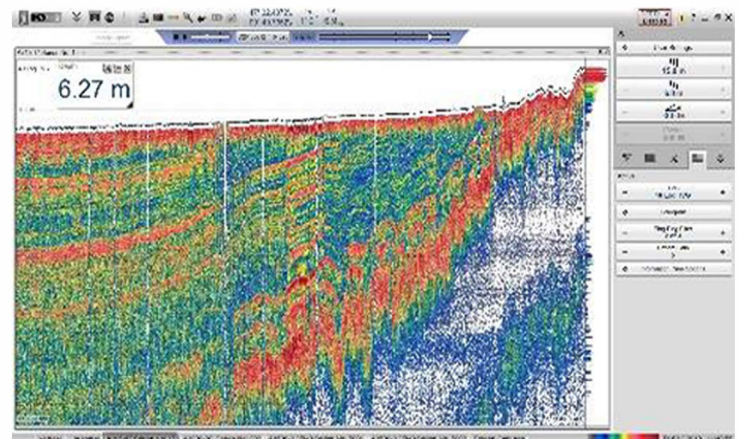|	EA440	EA440SP
Performance	Pulse length and precision:	
	500 kHz: CW 32 to 512µs, 0.3cm	
	200 kHz: CW 64 to 1024 µs, 0.6 cm	
	38 kHz: CW 256 to 4096 µs, 2.4 cm	
	15 kHz: CW 512 to 8192 µs, 4.9 cm	
	10 kHz: CW 1 to 16 ms, 9.8 cm	
	Ping rate: max 40 per second	
Range	Display range: 1 to 12.500 m	
	Transducer range: 30 to 500 kHz	
	Sub-bottom range: 10 to 30 kHz	
Sound speed	Manual (1400 to 1700 m/s)	
	Calculated from temperature and salinity	
	From sound velocity probe	
External interfaces	Transceiver: Ethernet communication	
	Ethernet to ship's network	
	Sensors: GPS, gyro, motion, speed, temperature, and sound speed	
	Remote control: Remote stop/start logging available on serial line or network	
User interfaces	Main control: Mouse, trackball or touch screen on a comprehensive menu system	
	Menu languages: English, Norwegian, and a variety of other languages	
Supported output	NMEA (DBS, DBP, DPT)	
	Simrad, Atlas and Hymas	
Export file formats	Raw data, XTF, SEG-Y, XYZ, Echogram, EA400, Marker and Parameters	
WBT weight and dimensions	Depth: 213 mm	Depth: 386 mm
	Width: 438 mm	Width: 488 mm
	Height: 84 mm	Height: 190 mm
	Weight: 5 kg	Weight: 11 kg
Power specifications:	Voltage requirement: 12 to 15 VDC, 5A	
	A suitable power supply for 220/110 VAC operation is provided with the delivery	
Environmental specifications	Operational temperature: 0 to 50°C	
	Storage temperature: -40 to 70°C	
	Relative humidity: 5 to 95% relative non-condensing	
	WBT IP Class: IP42	Suitcase when closed: IP56 Rugged PC: IP65

• Applications from 0.2 m to 3000m water depths
• High performance hydrographic depths observations from 30 kHz to 500 kHz
• Sidescan sonar application from 100 kHz to 500 kHz
• Sub-bottom profiler application from 10 kHz to 30 kHz
• Available with high power output from 30 kHz to 50 kHz
• Extensive range of transducer interfaces, both Kongsberg transducers and third-party transducers
• Splash proof all-in-one hardware setup available
• CW and FM pulse forms
• True raw data logging
• World class bottom detection
• New map display to track your coverage

The EA Map Display

The EA440 view provides a geographical display of the vessel, the vessel tracks and sidescan coverage if applicable. The map is supplied by the user based on WMS or GeoTIFF services. If no map is available, you will get the graticule lines displayed for you track and coverage for reference for you track and coverage.

EA440 offers internal storage of all raw sample data. This includes all external input sensor data for replay purposes.

KONGSBERG

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