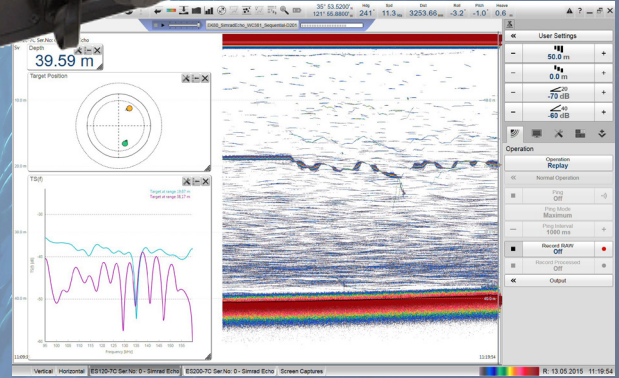


# EK80 WBT



KONGSBERG



## Simrad WBT WIDEBAND ECHO SOUNDER TRANSCEIVER

### KEY FEATURES

- Member of the Simrad EK80 wideband echo sounder family
- Rugged and compact design
- Controlled by the EK80 software
- Operating frequency from 10 to 500 kHz
- Chirp (frequency modulated sweep) and continuous wave (CW)
- CW pulses up to 8 ms pulse length
- Can control four channels independently.
- Maximum output power is 2000 W (4 x 500 W)
- Standardized EK80 raw data format.
- Wide range of transducers available.

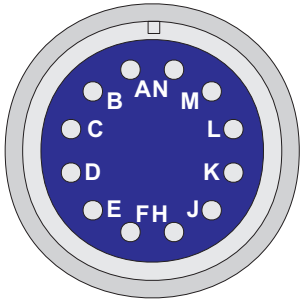
The Wide Band Transceiver (WBT) is a highly efficient echo sounder transceiver. It is used by marine research vessels all around the world. The WBT transmits acoustic energy into the water and receives echoes from fish, schools and other objects in the water column.

Typical applications include:

- Research vessels
- Ocean observatories
- Fish migration and stock assessment studies
- Water column profiling

The Wide Band Transceiver is designed for applications where performance is the top priority. It offers four 500 W channels. These can either work independently with single-beam transducers, or together with a split-beam transducer. The design is optimized for applications where power consumption and physical size are not critical. This is typically onboard a fishing or research vessel, or on a platform with power and communication easily available.

The WBT operates within a large frequency band. It supports frequency sweeps ("chirp"), Continuous Wave (CW) and custom-defined frequencies (work in progress).



Single-beam transducer connections are made according to the software licenses as follows:

- License 1: Pins H and J
- License 2: Pins E and F
- License 3: Pins C and D
- License 4: Pins A and B
- ID-chip/temperature sensor: Pin L
- Digital Ground: Pin M
- Cable shield: Pin N

Splitbeam transducer connections are made according to the software licenses as follows:

- Sector 1/Channel 1: Pins H and J
- Sector 2/Channel 2: Pins E and F
- Sector 3/Channel 3: Pins C and D
- Sector 4/Channel 4: Pins A and B
- ID-chip/temperature sensor: Pin L
- Digital Ground: Pin M
- Cable shield: Pin N

Further information can be found in the relevant installation manuals.

## TRANSDUCER CONNECTIONS

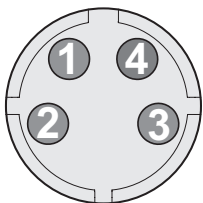
The transducer is connected to the WBT using an Amphenol connector. You can use the following transducer combinations:

- Four single-beam transducers
- One splitbeam transducer with four sectors
- One splitbeam transducer with three sectors combined with one single-beam transducer

When split-beam transducers are used, make sure that the transducer is correctly installed with its “Forward” mark pointing towards the bow. Each transducer sector must then be connected to the correct pins as listed on the Software License page in the user interface.

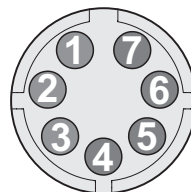


- (A) Ground cable for vessel ground
- (B) Transducer cable for transducer
- (C) Ethernet cable for Processor Unit
- (D) DC power cable for Power Supply Unit
- (E) Auxiliary connector for synchronization (Optional)



### POWER CONNECTION

- (1) +12-15 VDC
- (2) 0 VDC
- (3) 0 VDC
- (4) +12-15 VDC



### AUXILIARY CONNECTION

- (1) For future use
- (2) Synchronization out (5 V)
- (3) Synchronization in (5-12 V)
- (4) For future use
- (5) Ground (GND)
- (6) For future use
- (7) For future use

Performance:	Frequency range: 10-500 kHz	Power requirements:	12-15 VDC, 5A
	Pulse duration: 64-8192 µs		Power supply (included): 100/230 VAC, 47-63 Hz, single phase
Weight and outline dimensions:	Pulse forms: CW, FM and custom forms	Environmental requirements:	Operational temperature: 0 to 50°C
	Maximum transmit power: 2000 W		Storage temperature: -40 to 70°C
Transducer options:	- Single beam	Standards:	Humidity: 5-95%, relative, non-condensing
	- Split beam		Ingress Protection: IP52
Depth: 213 mm	Width: 438 mm	Tested according to EN 60945 (2002)	
	Height: 84 mm		
Weight: 5 kg			

