KONGSBERG

KEY FEATURES

- Member of the EK80 wide-band echo sounder family
- Rugged and compact design
- Operating frequency from 10 to 500 kHz
- 4 channels controlled individually
- Wide range of available transducers

Wideband echo sounder transceiver

EK80 WBT

The Wide Band Transceiver is designed for applications where performance is the top priority. It offers four 500 W channels. The WBT interfaces both split-beam, single-beam and ADCP transducers for a range of possible applications.

The design is optimized for applications where you want the maximum frequency range from 10 to 500 kHz, and the maximum transmit power with 4 x 500W. This is typically onboard a fishing or research vessel, or on a platform with power and communication easily available. The WBT supports frequency sweeps (“chirp” or FM) and continuous wave (CW).

Transducer connections

The transducer connections to the Wide Band Transceiver (WBT) are changed. For legacy reasons, both new and old connections are shown in the drawings. You can use the following transducer combinations:

- Up to four single-beam transducers
- One split-beam or ADCP transducer with four sectors
- One split-beam transducer with three sectors combined with one single-beam transducer

When split-beam or ADCP transducers are used, make sure 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 shown on the wiring diagrams page that are listed later in this document.

Other WBT options

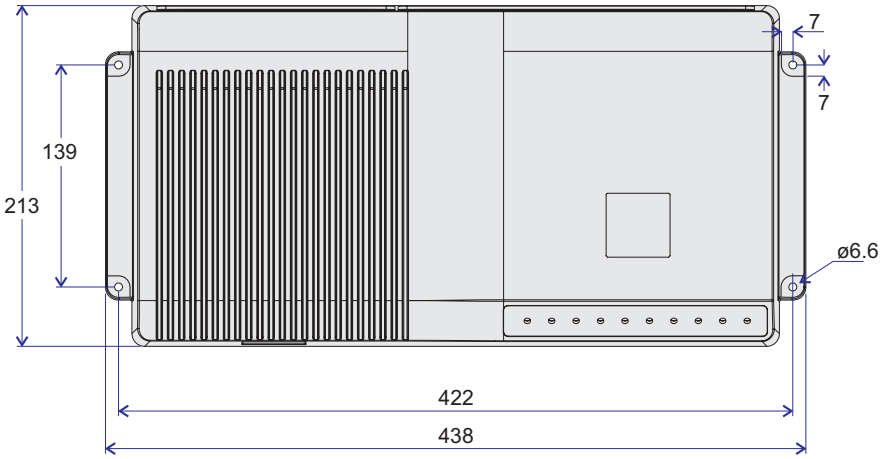
- **WBT Tube** - two compact WBTs combined in a watertight container for deep water operations
- **WBAT** - self-contained, autonomous, transceiver mass storage device and battery in a pressurized container
- **WBT Mini** - miniturized WBT for installation in cramped spaces

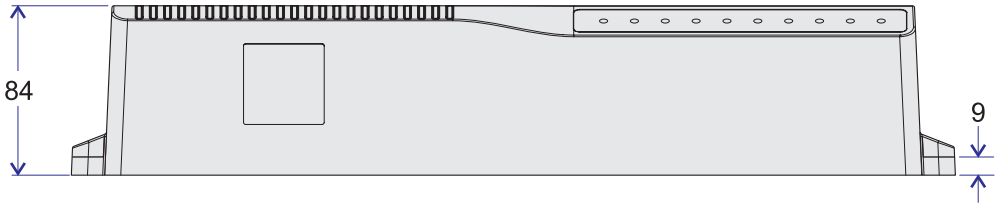
Order information

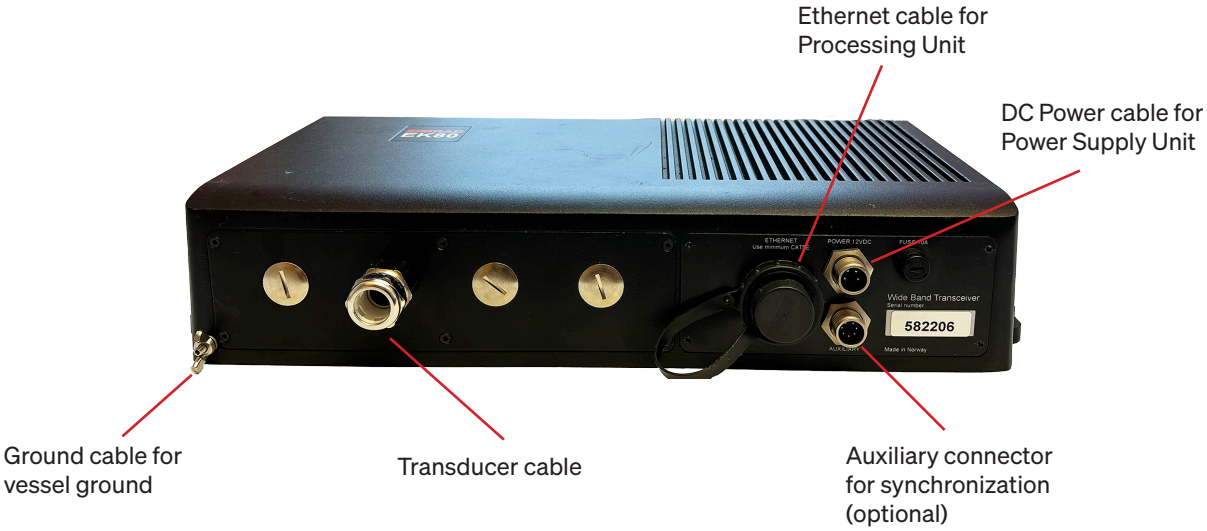
Visit www.kongsberg.com/wbt for more information, and end-user manuals.

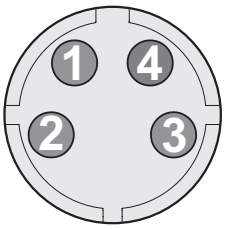
Standard deliverables

- WBT: 392729
- Included in the delivery: WBT, software, power supply, Ethernet cable

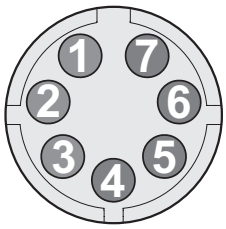








WBT socket front view

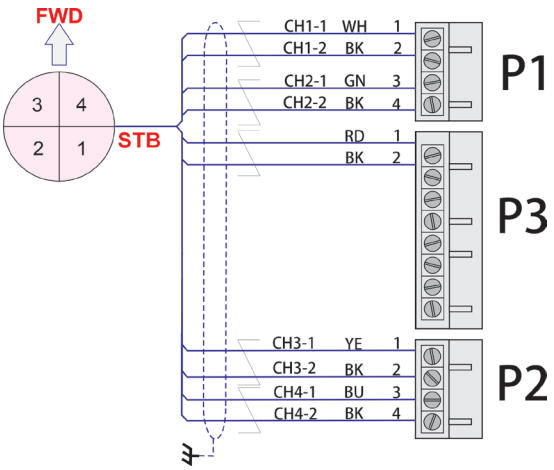


WBT socket front view

Power connections
1. +12 to 15 V DC
2. 0 V DC
3. 0 V DC
4. +12 to 15 V DC

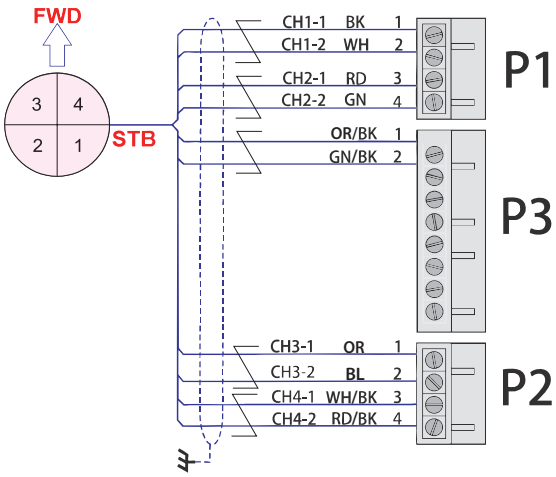
Auxiliary connections
1. Tx status (Open-collector)
2. Synchronization out (TTL)
3. Synchronization (RS-232)
4. For future use
5. Ground (GND)
6. For future use

Connection to Phoenix connectors



Transcribe seen from the above

Connection to Phoenix connectors CP300



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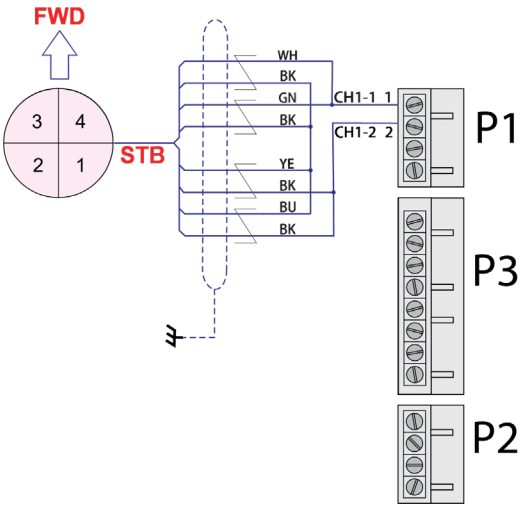
Split-beam transducer wired as single-beam transducer (Phoenix connectors)



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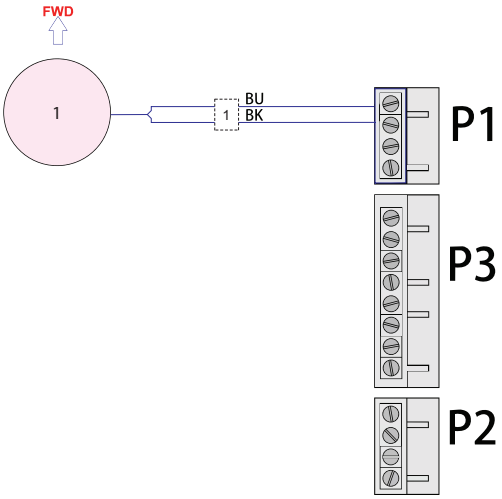
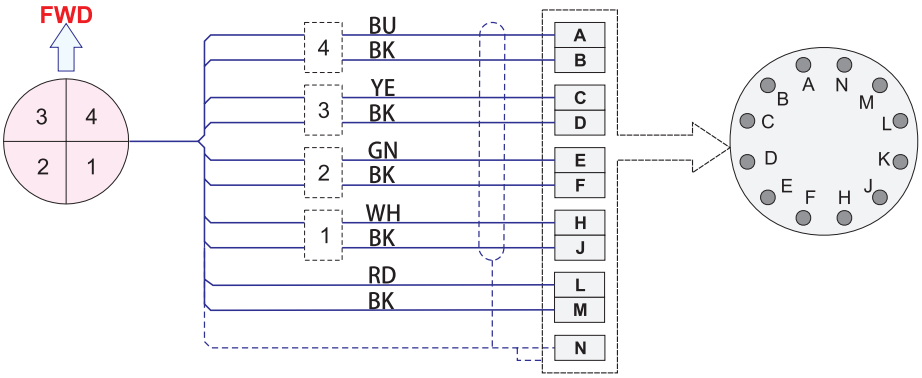
Single-beam transducer wired to a WBT



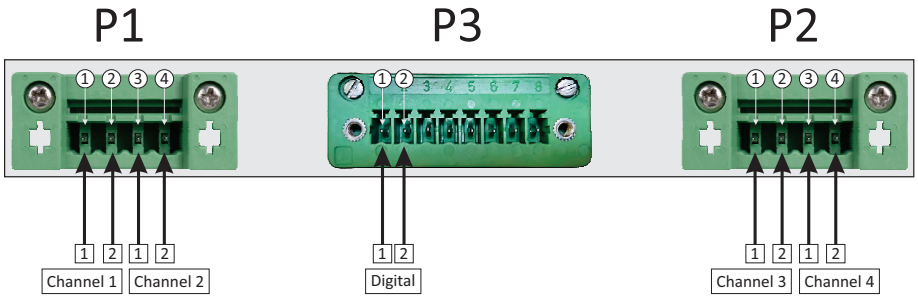
Transcribe seen from the above

- A single-beam transducer can be connected to channel 1 (P1-1&2), channel 2 (P1-3&4), channel 3 (P2-1&2) or channel 4 (P2-3&4).

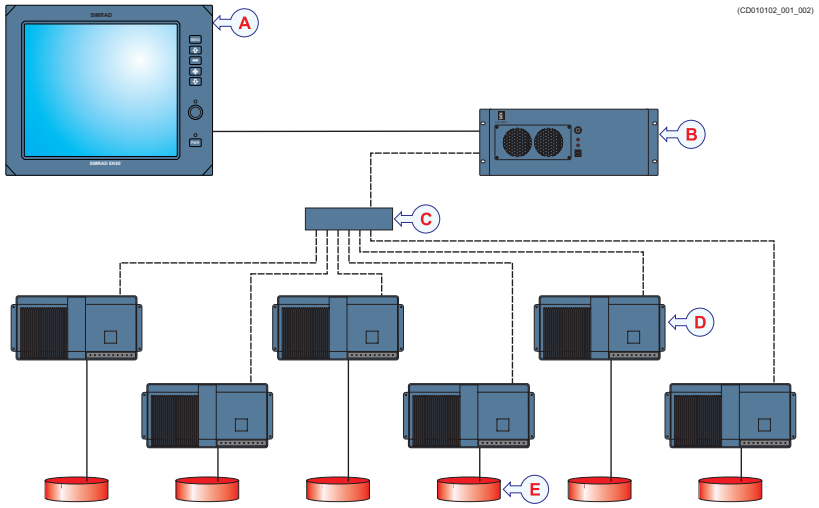
Connections to Amphenol socket



Phoenix connectors for single and split-beam configuration



The amphenol connector is replaced by a up to 4 cable glands on all new wide band transducers. Further information can be found in the relevant installation manuals or transducer data sheet.



Technical specifications

Performance	Frequency range: 10 to 500 kHz Pulse duration: 64 to 8192 µs Pulse forms: CW and FM Max. transmit power: 2000 W Transducer options: Single-beam, split-beam and ADCP
Weight and outline dimensions	Depth: 213 mm Width: 438 mm Height: 84 mm Weight 5 kg
Power requirements	12 to 15 V DC, < 1 A during operation 5 A peak when activated Overcurrent protection: –DC input fuse protected. –Transducer output overcurrent protected. Power supply (included): 100/230 V AC, 47 to 63 Hz, single phase, max. 3 A.
Environmental requirements	Operational temperature: 0 to 50° Storage temperature: -40 to 70° Humidity: 5-95%, relative, non-condensing Ingress Protection: IP52 Tested according to EN 60945 (2002)

System diagram
1. (A) Display
2. (B) Processing Unit
3. (C) Ethernet switch
4. (D) WBT - Transceiver(s)
5. (E) Transducer(s)

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