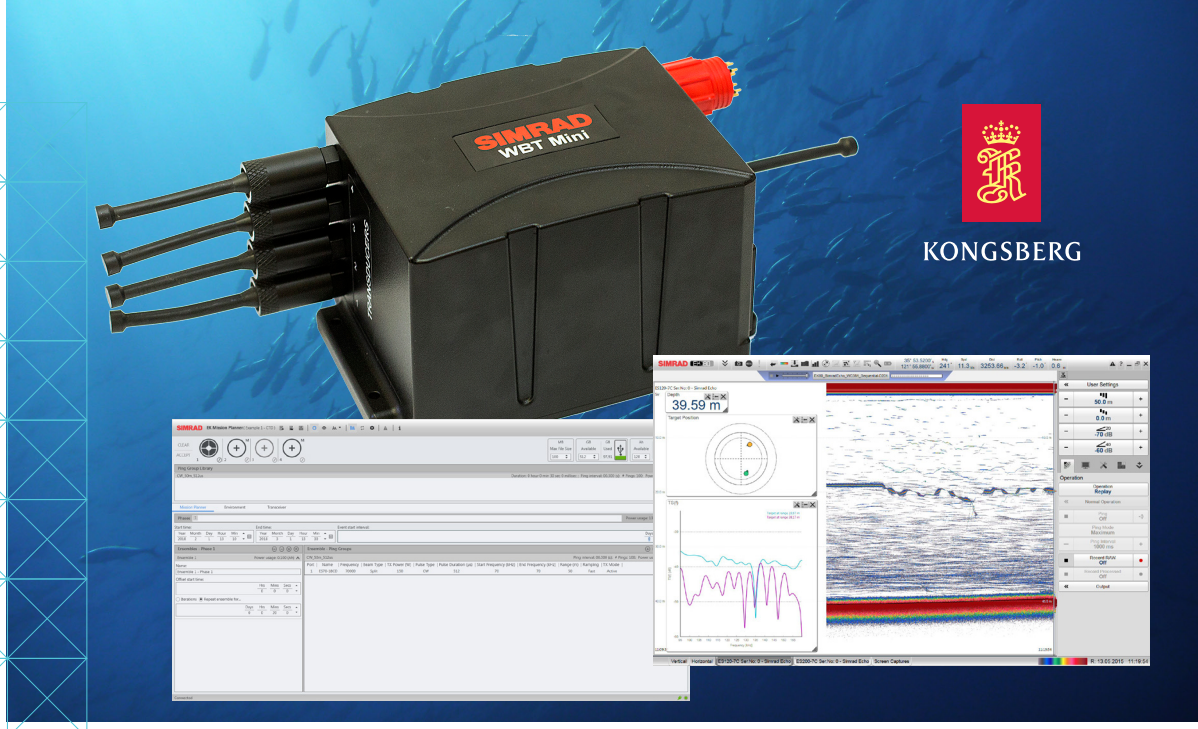
WBT MINI



MINIATURE WIDEBAND ECHO SOUNDER TRANSCEIVER

WBT Mini

The WBT Mini is a compact version of the highly efficient Wide Band Transceiver (WBT) used by marine research vessels all around the world. Its compact size and energy-efficient design make it perfect as a portable echo sounder or for installation on a wide range of platforms.

KEY FEATURES

- A member of the EK80 wideband echo sounder family
- Rugged and compact design
- Splash Proof
- Operates in EK80 or Autonomous mode
- Four independents channels with built-in multiplexing available
- Built-in calibration tool
- Low power consumption
- Wide range of transducers available

Typical applications

- Unmanned Surface Vehicles
- Autonomous Underwater Vehicles
- Autonomous Underwater Gliders
- Portable configurations
- Fixed installations in challenging environments Description

The WBT Mini contains four individual transceiver channels with multiplexing functionality. This allows for a flexible setup of split- or single-beam transducer configurations.
The WBT Mini is contained in a splash proof cabinet and the robust design allows long-term deployment in challenging environments.
The WBT Mini can be operated either in EK80 mode or Autonomous mode.

Order information

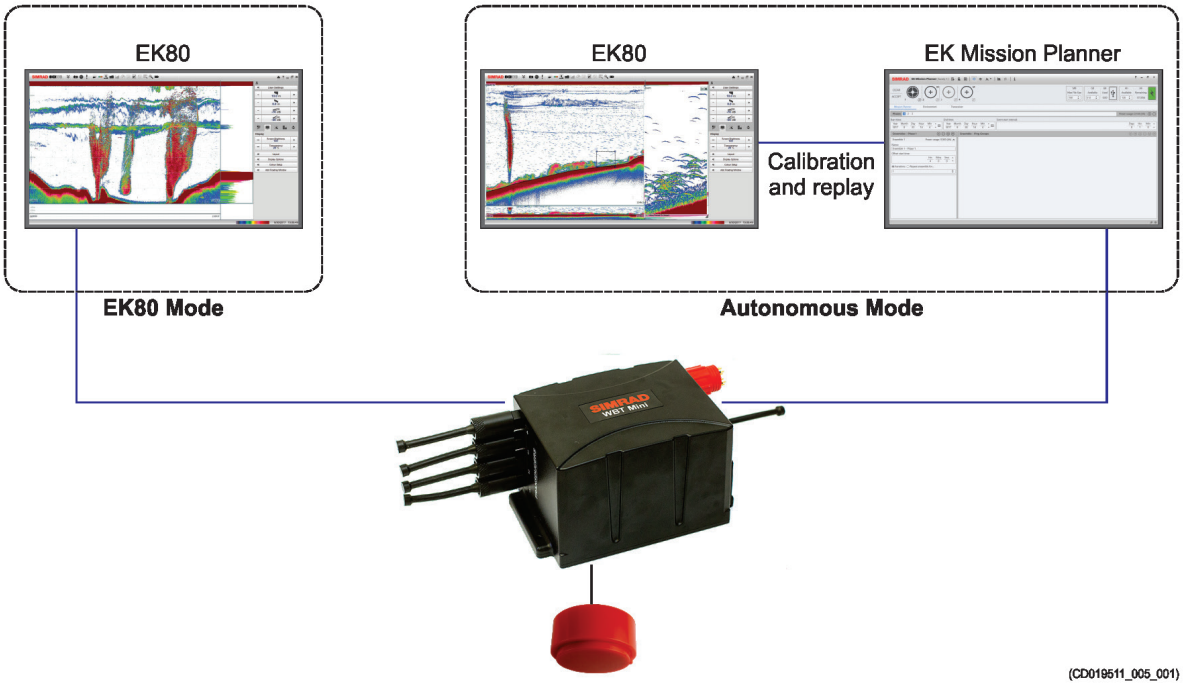
To order the ES38-18DK transducer contact your local dealer or use our website.
https://www.kongsberg.com/wbt-mini

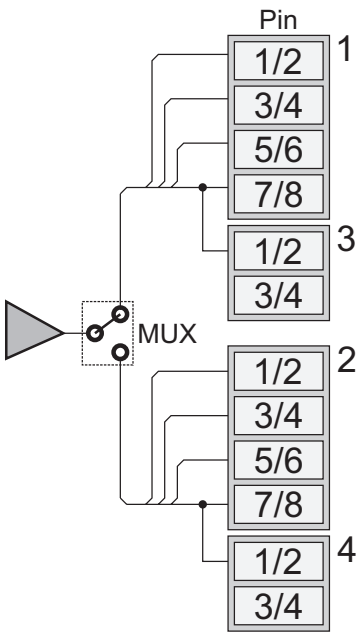
WBT mini

- 417775 WBT Mini 15 V Autonomous version
- 417774 WBT Mini EK80 transceiver version

Included in all deliveries:

- Software and documentation
- Test cable





EK80 mode

This mode requires a Processor Unit with EK80 software and one or more EK80 software licenses. With the EK80 software you are in full control of the transceiver at all times using an Ethernet connection. You can observe data in real time and/or record RAW data in a suitable location on the Processor Unit.

Autonomuous mode

In this mode, the WBT Mini is pre-programmed with a mission using the EK Mission Planner. The EK Mission Planner lets you define acoustic settings for pings, groups of pings and how to combine these into a mission. A mission will normally record data in intervals over a period of time.

Recorded .RAW data is stored internally in the WBT Mini, and retrieved after mission completion.

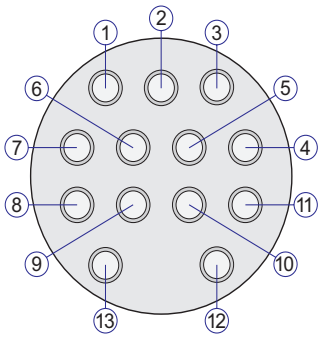
Transducers and multiplexing

The WBT Mini has four transducer connectors. There are two 8-pin connectors (identified as 1 and 2) and two 4-pin connectors (3 and 4).

- Connector 1 is the main connector. It is always in use.
- Connector 2 is used for multiplexing with connector 1.
- Connector 3 is used for adding an extra single-beam transducer when a 3-sector split-beam transducer is connected to connector 1
- Connector 4 is used for multiplexing with connector 3.

Power and Ethernet (connector A)

Connector type: MacArtney male DBH13MAS

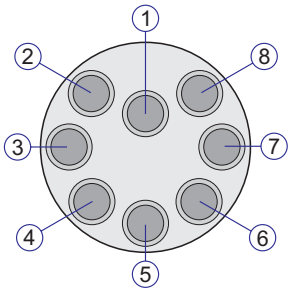


Seen towards the connector

1 +15 VDC (Black)
2 Screen
3 Ground (White)
4 RJ45/8 (Brown*)
5 RJ45/7 (Brown/White*)
6 RJ45/4 (Blue*)
7 RJ45/5 (Blue/White*)
8 RJ45/2 (Orange*)
9 RJ45/1 (Orange/White*)
10 RJ45/6 (Green*)
11 RJ45/3 (Green/White*)
12 N/C (Red)
13 N/C (Green)
*Twisted pairs

Serial RS 422 (connector B)

Connector type: MacArtney female MCBH8F

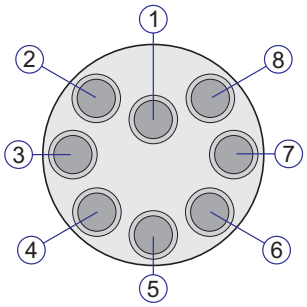


Seen towards the connector

1 WBT Mini RxD + (Black)
2 WBT Mini RxD - (White)
3 WBT Mini RxD - (Red)
4 WBT Mini RxD + (Green)
5 Ground (Orange)
6 N/C (Blue)
7 N/C (White/Black)
8 N/C (Red/Black)

Transducer 8-pin (connectors 1 and 2)

Connector type: MacArtney female MCBH8F

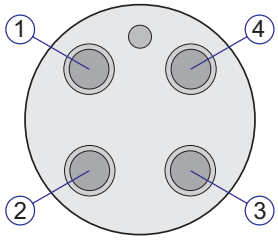


Seen towards the connector

1 Channel 1+ (Black)
2 Channel 1– (White)
3 Channel 2+ (Red)
4 Channel 2– (Green)
5 Channel 3+ (Orange)
6 Channel 3– (Blue)
7* Channel 4+ (White/Black)
8* Channel 4– (Red/Black)

Transducer 4-pin (connectors 3 and 4)

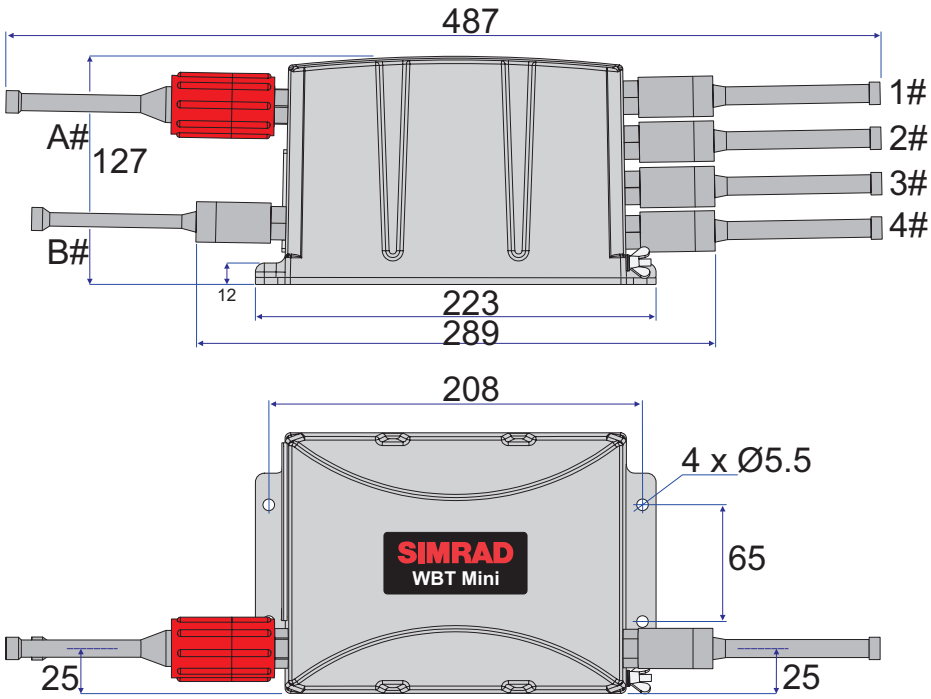
Connector type: MacArtney female MCBH4F

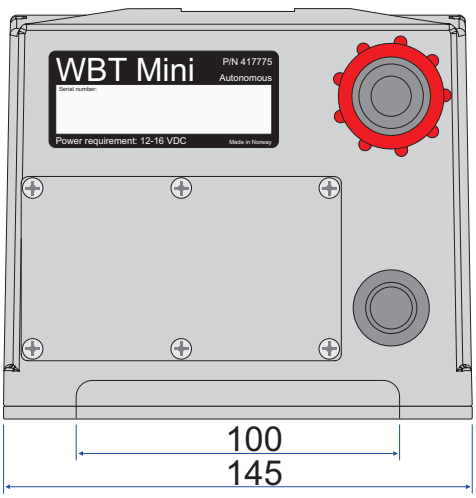


Seen towards the connector

1* Channel 4+ (Black)
2* Channel 4– (White)
3 N/C (Red)
4 N/C (Green)

*Pins 7 and 8 on the 8-pin transducer connector are connected in parallel with pins 1 and 2 on the 4-pin transducer connector.





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WBT Mini onboard the Remus AUV

WBT Mini onboard the jolner USV

WBT Mini onboard a Saildrone (Image courtesy of Saildrone).

TECHNICAL SPECIFICATIONS

Performance	Frequency range: 30-500 kHz Pulse duration: 64-2048 µs Pulse forms: CW + FM (Linear up-sweep) Maximum transmit power: 1000 W @55Ω Number of channels: 4 (Including multiplexer: 8) Transducer options: Single beam/Split beam Storage capacity (Autonomuous mode): 512 GB
Physical dimensions	Depth: 145 mm Width: 289 mm Height: 127 mm Weight: 5.4 kg
Power	Voltage requirement: 12-16 VDC Power consumption: Active: 38/120/333 kHz: 6/3/3 W (*) Passive: 2 W Standby: <0.02 A (Autonomous mode Maximum current: 2.5 A (Peak)) (*@ Maximum tx power 1 ms pulse duration, and 2 ping/second)
Environment	Operational temperature -15 to 55°C Storage temperature -20 to 70°C Ingress protection (IP) rating: IP67 Enclosure material: Aluminium

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