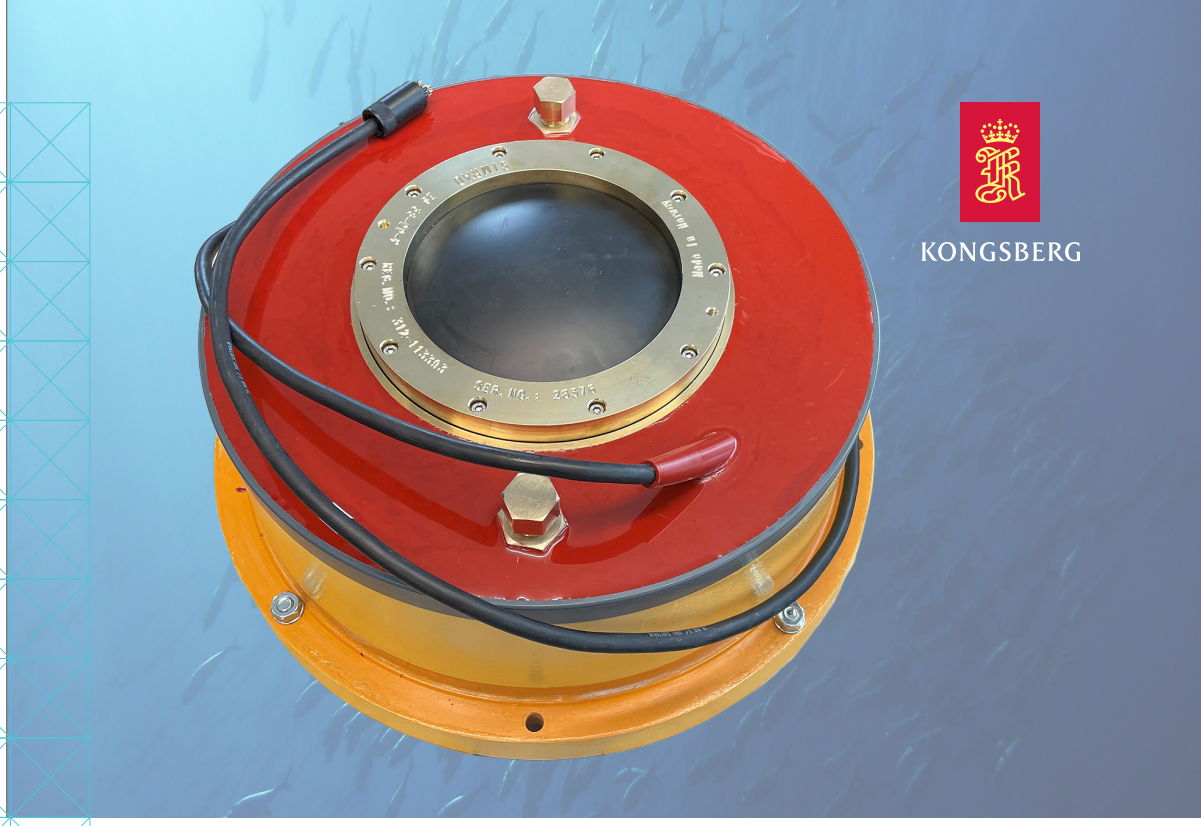
ES38DD



KONGSBERG

DETPTH-RATED SPLIT-BEAM TRANSDUCER

Simrad ES38DD

KEY FEATURES

- Depth-rated split-beam transducer for fishery and research applications
- Nominal freqency is 38 kHz
- Depth rating: 1500 m
- Beamwidth is 7°
- Maximum transmit power is 2000 W
- Physical dimensions:
  Diameter: 480 mm
  Height: 200 mm

The Simrad ES38DD is a split-beam transducer incorporating 88 Tonpilz elements distributed over four sectors. It is designed for fishery and fishery research applications. The beam width is 7° at an operating frequency of 38 kHz. The transducer is filled with liquid, and has a depth rating of 1500 meters.

The transducer is normally mounted flush with the hull plating. It is provided with an installation flange, and by means of a clamping ring, it is secured to a mounting ring welded into the hull plating or at the bottom of a blister. The clamping ring is provided with the transducer and already fitted.

Order information

To order the ES38DD transducer contact your local dealer or use our website

https://www.kongsberg.com/es38dd

Transducer

- KSV-113392 transducer w/2 m SubConn® connector
- Test Report is included in all deliveries.

Optional items

- Optional items can be ordered from Kongsberg Martitime or manufactured elsewhere.
- 499-074076 Mounting ring

SIMRAD
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Technical specifications

The technical specifications and requirements provided are those valid when operating at the nominal frequency with all sectors excited simultaneously.

Kongsberg Maritime is continuously working to improve the quality and performance of our products. The technical specifications may be changed without prior notice and the specifications refers to typical figures for the product.

Performance specifications

- Nominal frequency: 38 kHz
- Depth rate is 1500 m
- Beamwidth: 7°
- Figure of merit: +5 dB
- Max. source level: 228 dB re µPa per V @ 1 m
- Transmit sensitivity (Su): 183 dB re µPa per V @ 1 m
- Receive sensitivity (Mt): -178 dB re 1 V per µPa @ 1 m
- Sidelobe level < 14 dB
- Back radiation level < 14 dB
- Impedance (each sector): 65 Ω

Power specifications

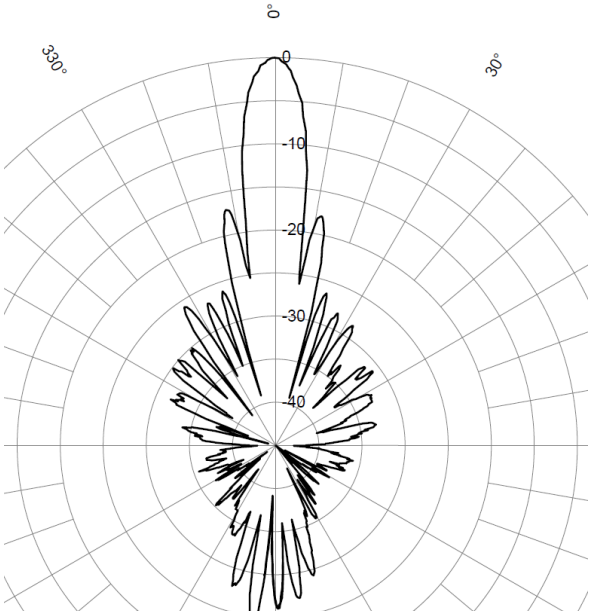
- Max. input power: 2000 W
- Max. pulse length: 4 ms
- Max. duty cycle: 1 %

Weight and outline dimensions

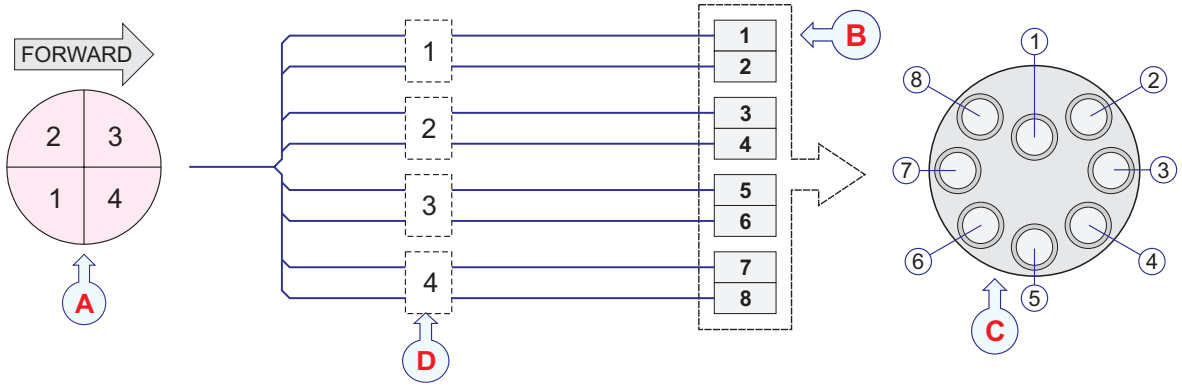
- Physical dimensions:
  Diameter: 480 mm
  Height: 200 mm (body)
  Total height: 230 mm
- Weight
  In air: 58 kg (incl. 2 m cable w/ SubConn® connector)
  In water: 31 kg (incl. 2 m cable w/ SubConn® connector)
- Cable length:
  2 m with SubConn® connector (MCIL8M)
- Cable diameter: 10.4 mm±0.5 mm
- Bending radius:
  Static: 100 mm (theoretical)
  Dynamic: 185 mm (theoretical)
- Fluid: 3M™ Fluorinert™ Electronic Liquid FC-770

Environment requirements

- Storage temperature:
  Max.: +60°C
  Min.: -20°C
- Operating temperature:
  Max.: +40°C
  Min.: -5°C



Beam pattern



Connections to MacArtney/SubConn® socket

The transducer is delivered with a MacArtney MCIL8M connector. Pinout looking into the plug is shown at the right in the figure. This connector is used for the WBAT, WBT Mini and WBT Tube (WideBand Transceiver).

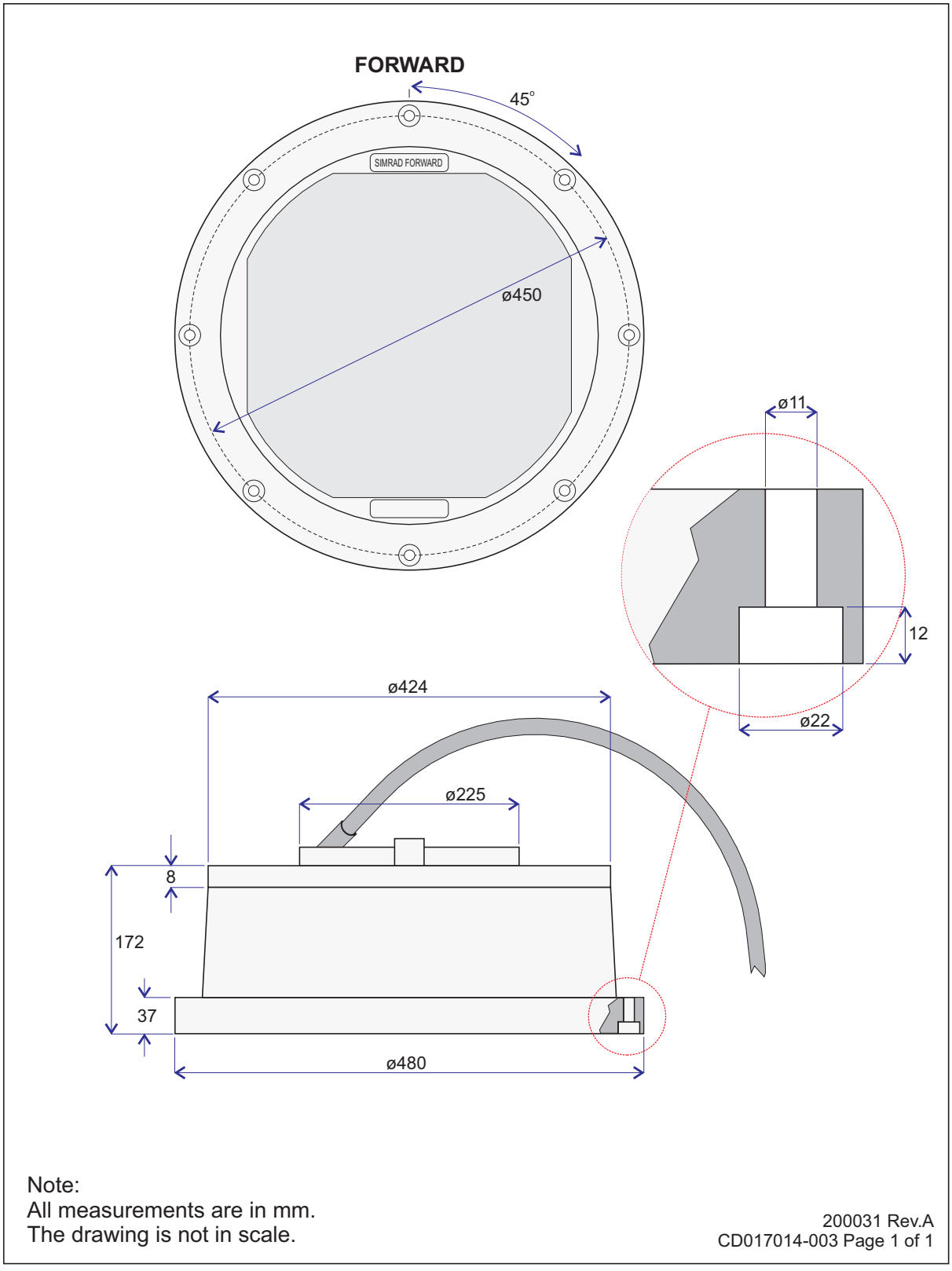
- (A) Transducer seen from above - observe the sector locations relative to the forward direction!
- (B) Terminals
- (C) Transducer socket seen from outside
- (D) Sectors

Rules for transducer handling

To secure the long life and accurate results, the transducer must be handled correctly.

A transducer must always be handled like a delicate item. Wrongful actions may damage the transducer beyond repair. Observe these transducer handling rules:

- Do not activate the transducer when it is out of the water.
- Do not handle the transducer roughly, avoid impacts.
- Do not expose the transducer to direct sunlight or excessive heat.
- Do not use high-pressure water, sandblasting, metal tools, or strong solvents to clean the transducer face.
- Do not damage the outer protective skin on the transducer face.
- Do not lift the transducer by the cable.
- Do not step on the transducer cable.
- Do not damage the transducer cable, avoid sharp objects.



Note:
All measurements are in mm.
The drawing is not in scale.

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