

# Simrad ES38DD

## Split-beam echo sounder transducer

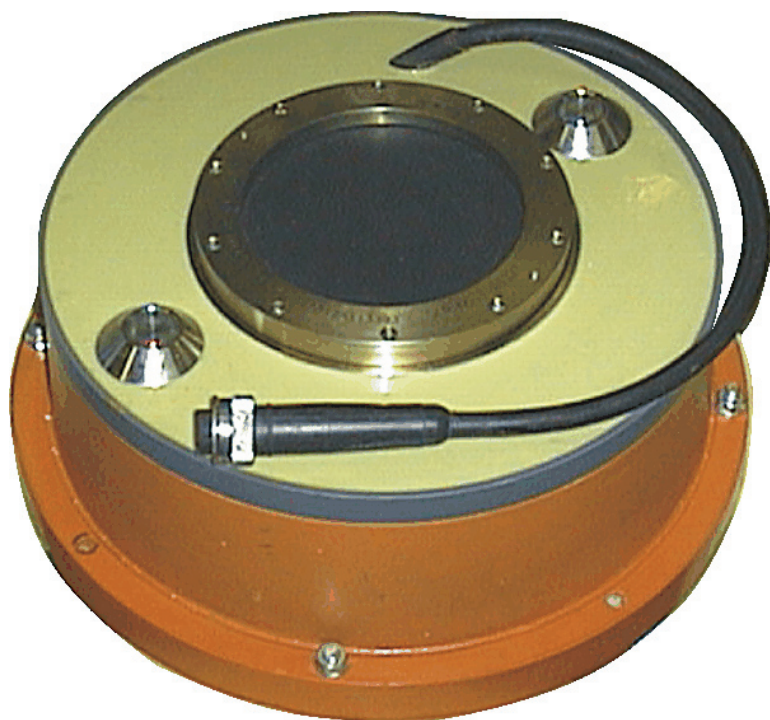
### Introduction

The Simrad ES38DD is a split-beam echo sounder transducer incorporating 88 Tonpilz elements distributed over four quadrants. The transducer is filled with liquid, and may thus be used at water depths down to 1500 meters.

The Tonpilz elements used in the ES38DD are identical to those found in the ES38B transducer, and therefore generate similar data with the exception of higher back radiation and lower efficiency.

### Order number

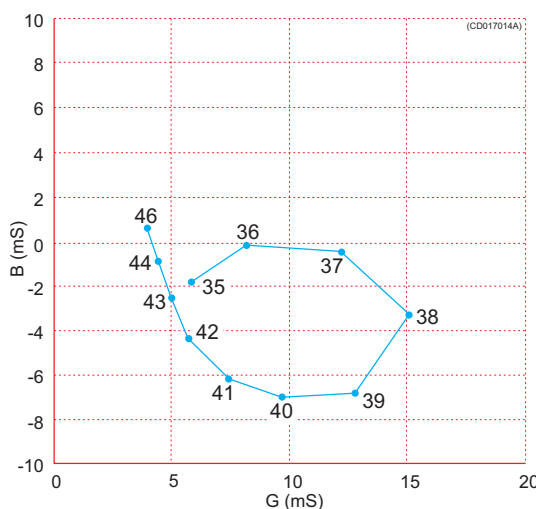
KSV-113392



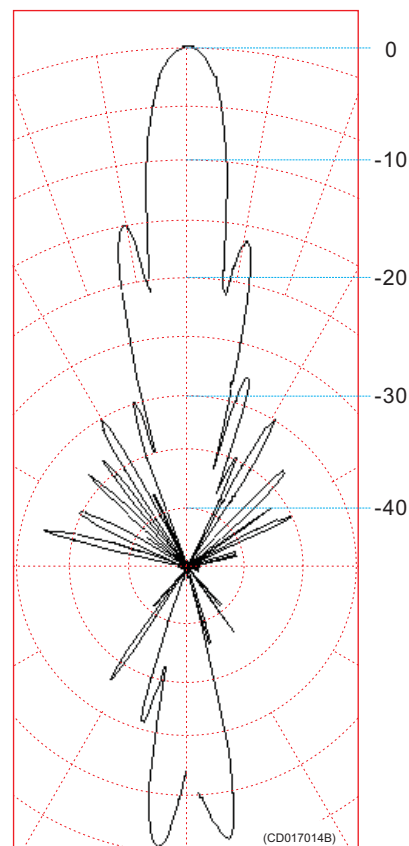
### Specifications

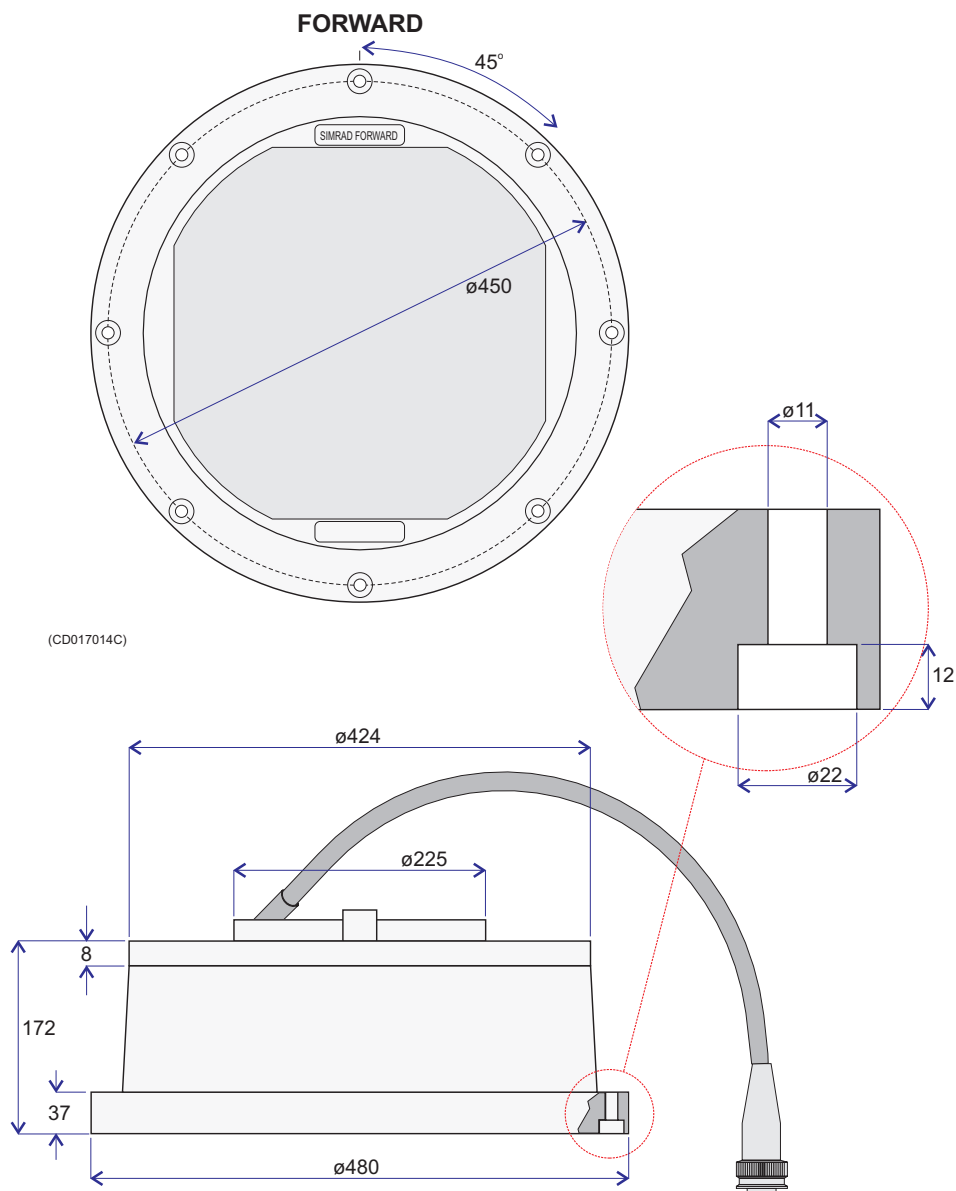
*The specifications provided are valid when all four quadrants are connected in parallel.*

- Resonant frequency: 38 kHz
- Circular beamwidth: 7 deg
- Directivity D: 630
- DI = 10 log D: 28 dB
- Equivalent two-way beam angle  $\Psi$ : 0.009
- 10 log  $\Psi$ : -20.5 dB
- Side lobes: Less than -14 dB
- Back radiation: Less than -14 dB
- Angle sensitivity: 21.9
- Nominal impedance: 15 ohm
- Max. variation in  $|Z|$ : 11 to 20 ohm
- Max. variation in phase angle:  $\pm 30$  deg
- Transmitting response: 183 dB re 1  $\mu$ Pa per V
- Receiving sensitivity, open circuit: -179 dB re 1 V per  $\mu$ Pa
- Electro-acoustic efficiency: 0.40
- Max. pulse power input: 4000 W

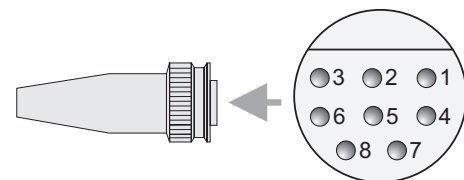


- Max. continuous input: 40 W
- Max. transducer depth: 1500 m
- Cable length, four pairs: 1 m
- Connector: 8-pin Burton female (5501-2008)
- Cable diameter: 11 mm
- Weight: 58 kg
- Storage temperature: -20° to 70°C





ES38DD Outline dimensions Note that the drawings is not to scale.



|       |   |    |                |
|-------|---|----|----------------|
| Pin 1 | + | Q1 | Aft starboard  |
| Pin 4 | - |    |                |
| Pin 2 | + | Q2 | Aft port       |
| Pin 5 | - |    |                |
| Pin 3 | + | Q3 | Fore port      |
| Pin 6 | - |    |                |
| Pin 7 | + | Q4 | Fore starboard |
| Pin 8 | - |    |                |

(CD017014D)

ES388DD Connector

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