

Simrad ES38-10

Split-beam echo sounder transducer

Introduction

The **Simrad ES38-10** is a medium size, 38 kHz split-beam echo sounder transducer. It incorporates 48 Tonpilz elements in three sections.

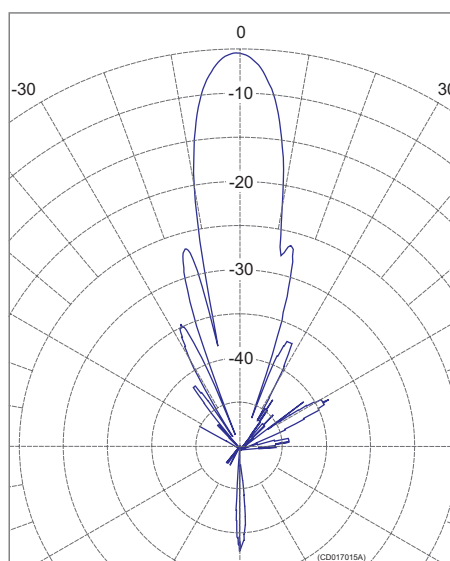
Order number

KSV-202714

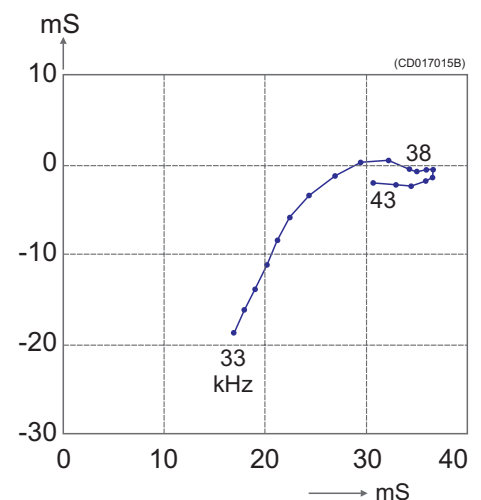
Technical specifications

The following specifications are valid when all three sections are connected in parallel.

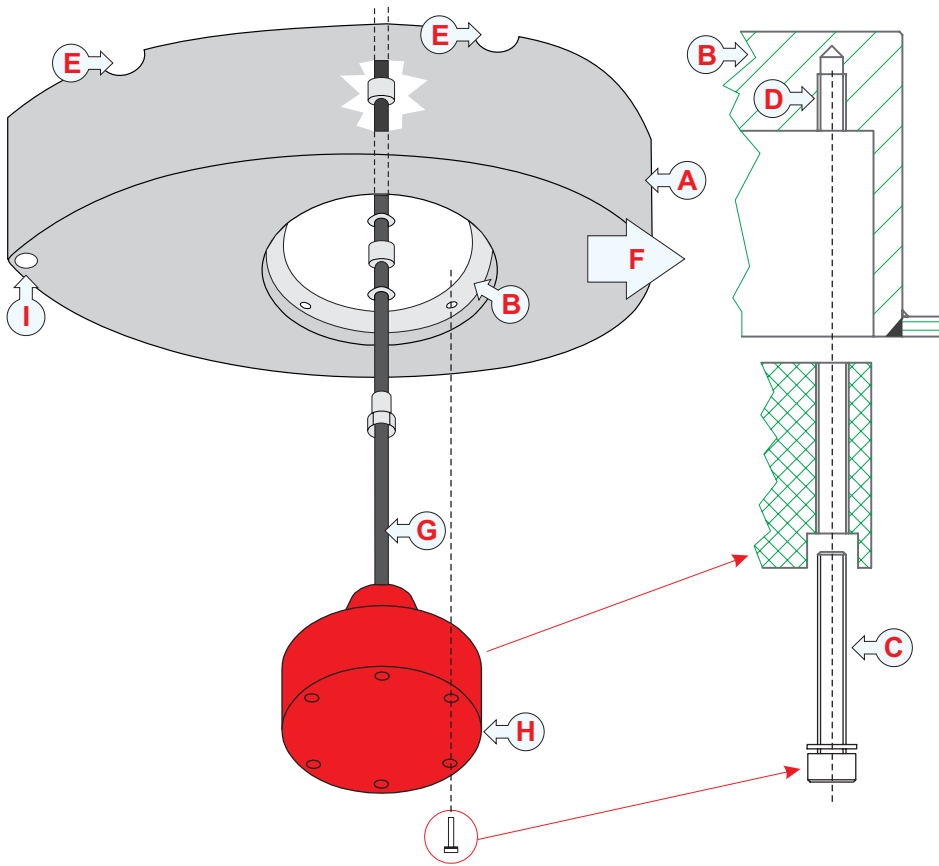
- Resonant frequency: 38 kHz
- Circular beamwidth: 10 deg
- Directivity D: 330
- $DI = 10 \log D$: 25 dB
- Equivalent two-way beam angle Ψ : 0.015
- $10 \log \Psi$: -18 dB
- Side lobes: Less than -18 dB
- Back radiation: Less than -30 dB
- Angle sensitivity: 12.5
- Nominal impedance: 25 ohm
- Max. variation in $|Z|$: 20 to 30 ohm
- Max. variation in phase angle: ± 30 deg
- Transmitting response: 181 dB re 1 μ Pa per V
- Receiving sensitivity, open circuit: -177 dB re 1V per μ Pa
- Electro-acoustic efficiency: 0.70
- Max. pulse power input: 1500 W
- Max. continuous input: 30 W
- Max. transducer depth: 100 m
- Cable length: 20 m
- Cable diameter: 10.6 mm
- Weight: 18 kg
- Storage temperature: -20° to 70°C



Beam pattern



Admittance, 3 sections in parallel



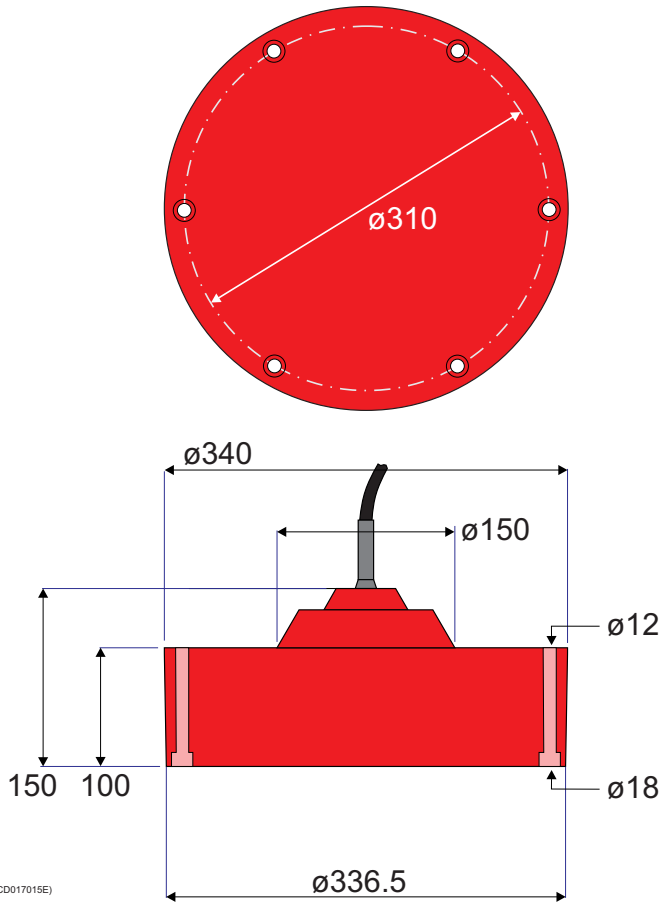
Installation principle

- (A) = Steel blister, must be manufactured by the shipyard
- (B) = Mounting ring, can be supplied by Simrad
- (C) = Bolt M10x100, maximum torque 31 Nm
- (D) = Self-locking threads
- (E) = Air outlet
- (F) = Forward
- (G) = Transducer cable
- (H) = Observe the marking on the transducer that identifies “forward”.
- (I) = Water drainage

For more information regarding installation, refer to the *Simrad ES38-10 Installation manual*.

Outline dimensions

All dimensions in mm



(CD017015E)

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