

# Simrad ES38-12

## Split beam echo sounder transducer

### Introduction

The **Simrad ES38-12** is a split-beam transducer incorporating 32 piezo-ceramic elements distributed over four quadrants.

### Order numbers

Transducer: KSV-111497

Mounting plate: 499-111492(\*)

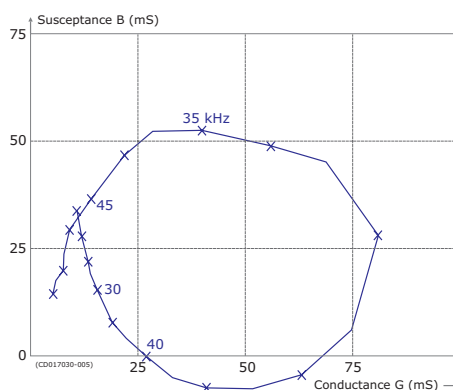
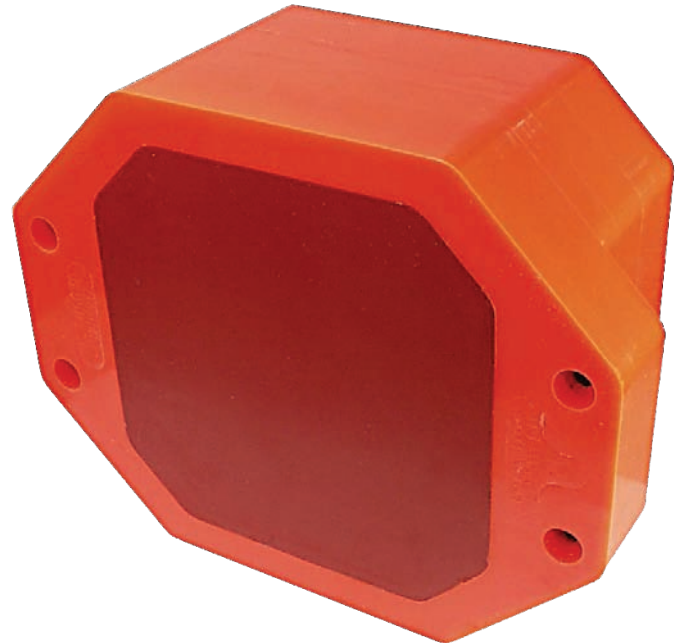
(\*) This item must be ordered separately.

### Technical specifications

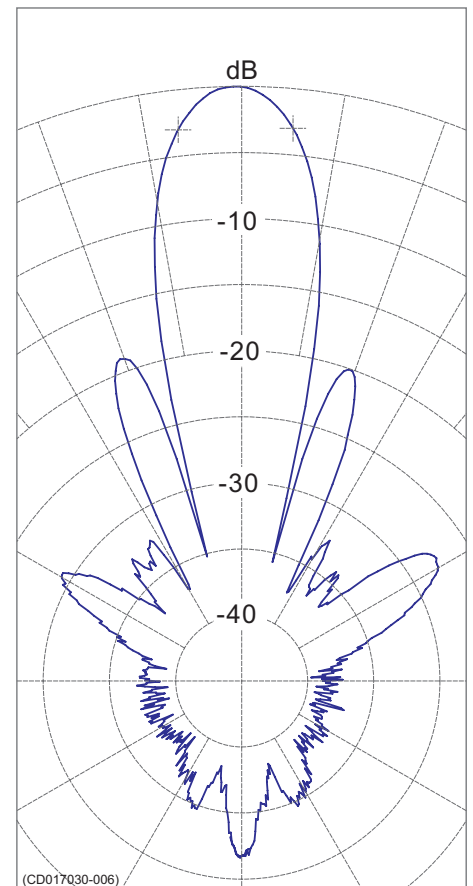
The following specifications are valid when all four quadrants are wired in parallel. Note that the specifications may be altered without prior notice.

- Resonant frequency: 38 kHz
- Circular beamwidth:  $12 \pm 2^\circ$
- Directivity:  $210 \pm 20\%$
- Equivalent two-way beam angle:  $0.027 \pm 20\%$
- Side lobes:  $\leq -17$  dB
- Back radiation:  $\leq -26$  dB
- Nominal impedance:  $15 \Omega$   
(Each quadrant:  $60 \Omega$ )
- Transmitting response:  $180.5 \pm 2$  dB re  $1 \mu\text{Pa}$  per V
- Receiving sensitivity, open circuit:  $-182,5 \pm 3$  dB re 1V per  $\mu\text{Pa}$
- Electro-acoustic efficiency: 60%
- Max. pulse power input:  
Hull mounted: 1000 W  
In towed body: 1500 W
- Max. continuous input: 20 W<sup>1</sup>
- Max. transducer depth: 150 m
- Cable length: 20 m
- Cable diameter: 10,6 mm
- Weight without cable: 12 kg
- Storage temperature:  
 $-20^\circ$  to  $+55^\circ\text{C}$

1) The ping rate (pings per second) multiplied with the pulse duration (in seconds), and then multiplied with the power output, must be less than 20 W.



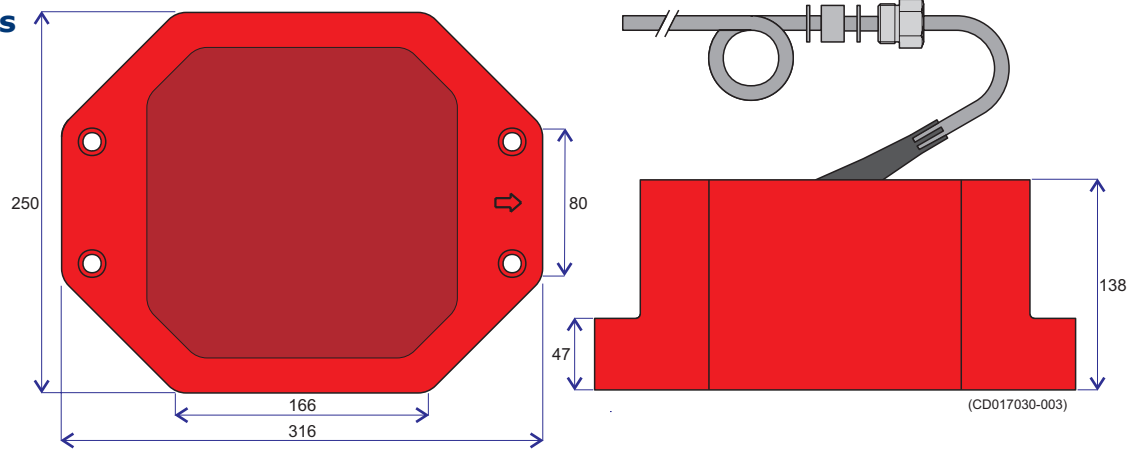
Admittance



Beam pattern

**Outline dimensions**

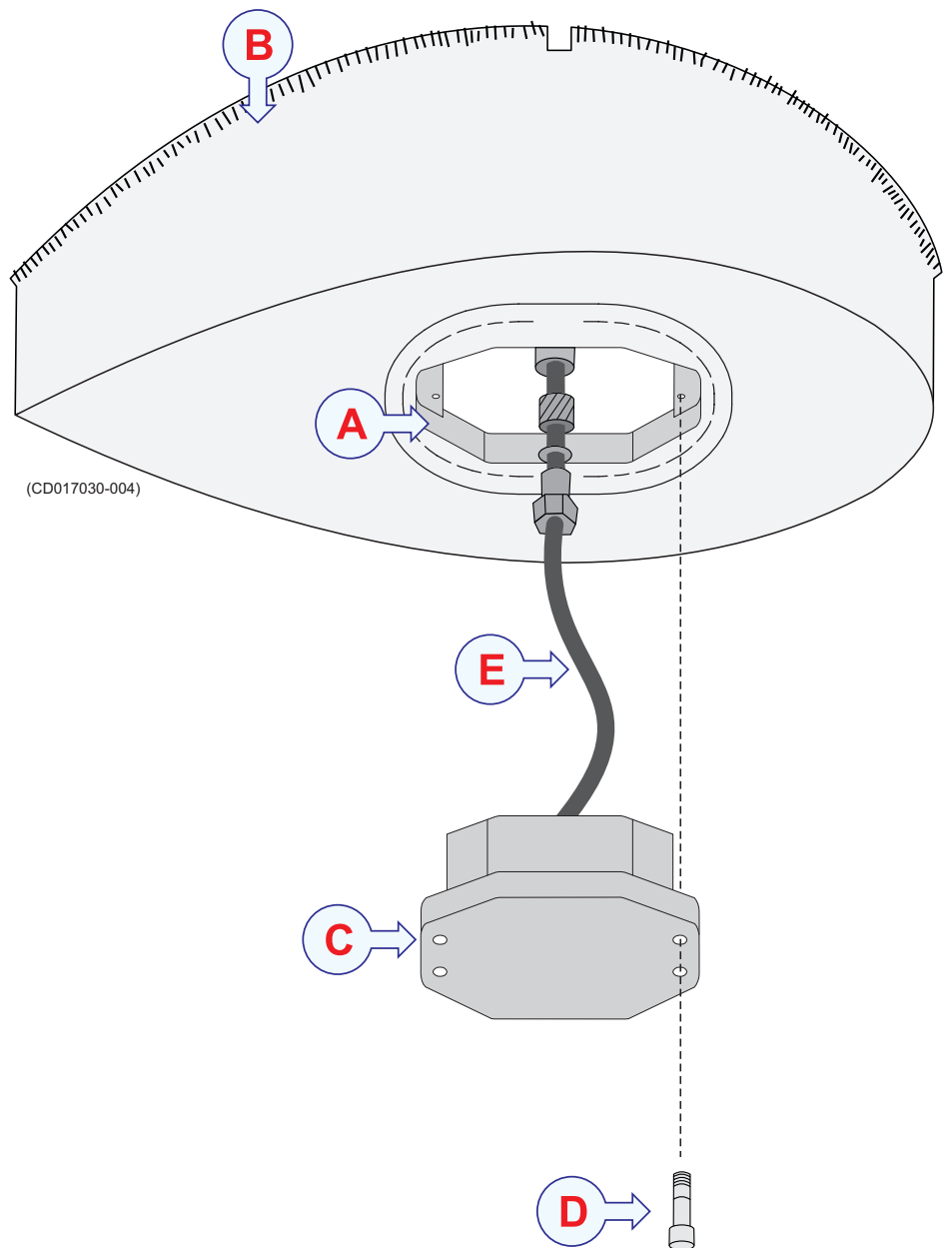
All dimensions in mm



**Installation principle**

- A Mounting plate
- B Steel blister
- C Transducer
- D Bolt, penetrates transducer and secures it to the mounting plate
- E Transducer cable, must run in cable conduit

For more information regarding the installation, refer to the *Simrad ES38-12 Installation manual*.



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