

120 kHz split-beam transducer for deep water installations

Introduction

The ES 120-7DD is a split-beam transducer incorporating 76 piezo-ceramic elements distributed over four quadrants. It is designed for deep water installations with a maximum depth of 1500 m. The following specifications are valid when all four quadrants are connected in parallel.

Order number

KSV-112417

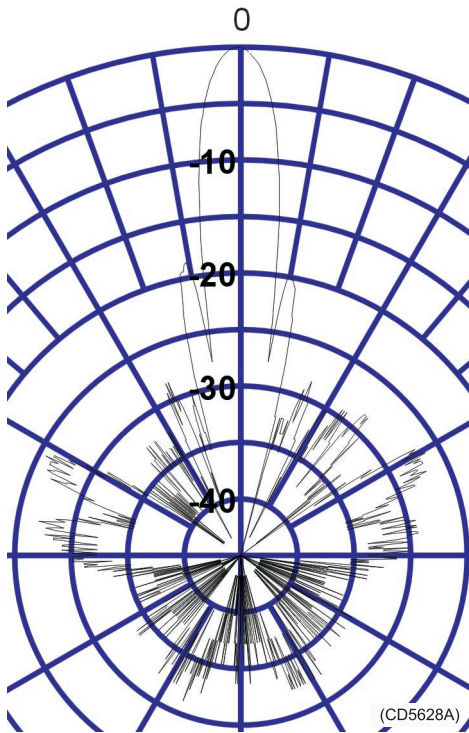
Technical specifications

Resonant frequency 120 kHz
Circular beamwidth 7 deg
Directivity:
D 650
DI=10 log D 28 dB
Equivalent two-way beam angle:
 ψ 0.009
10 log ψ -20.5 dB
Side lobes less than -15 dB
Back radiation less than -30 dB
Angle sensitivity (phase angle to target) 21
Impedance:
Nominal value 15 ohm
Max. variation in $|Z|$ 11 to 20 ohm
Max. variation phase angle ± 30 deg

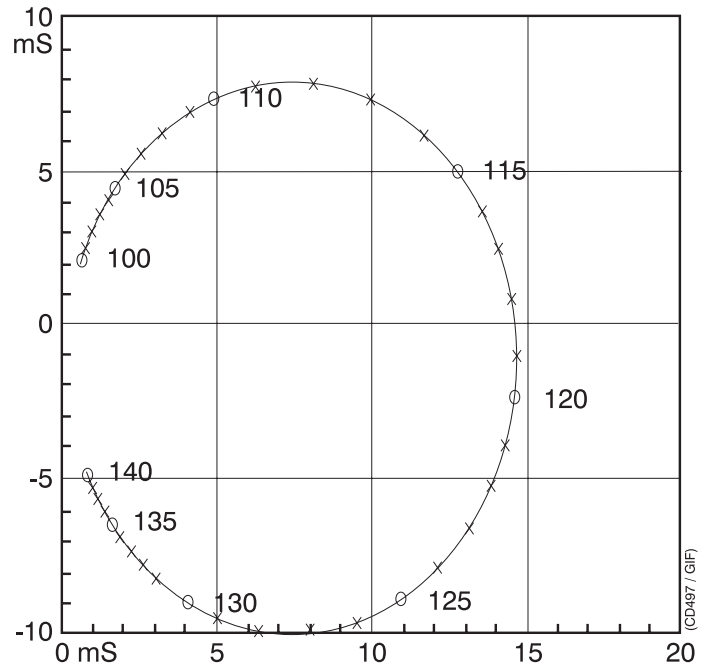


Transmitting response 185 dB
(dB re 1 μ Pa per V)
Receiving sensitivity open circuit -187 dB
(dB re 1 V per μ Pa)
Electroacoustic efficiency 0.60
Maximum pulse power input 1000 W
Maximum continuous power input 10 W
Maximum transducer depth 1500 m
Cable with underwater connector 0.5 m
Weight without cable 6 kg
Storage temperature -20 to +70 °C

Data

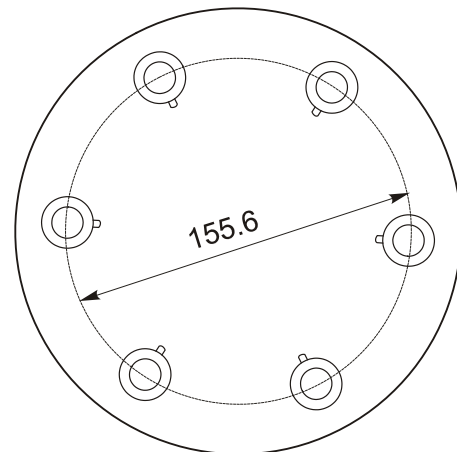
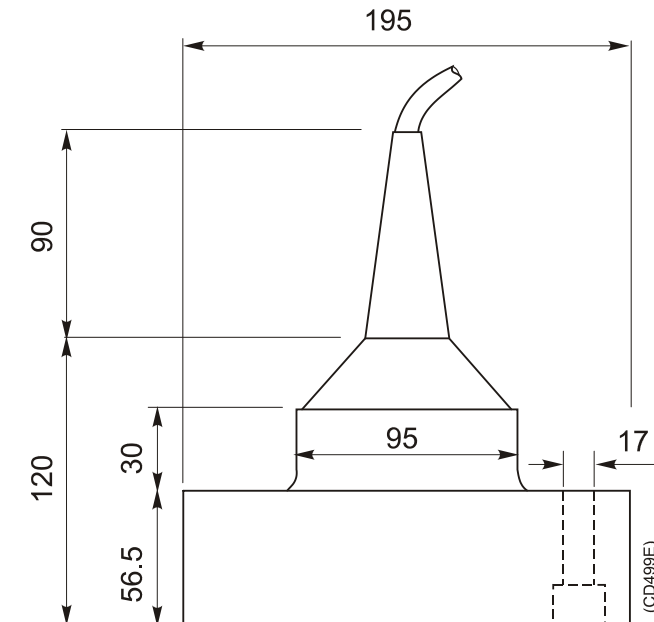


Beam pattern



Admittance of one quadrant

Installation



Manufacturer:

Simrad AS
 Strandpromenaden 50
 P.O.Box 111
 N-3191 Horten
 Telephone: +47 33 03 40 00