

Simrad ES333-7CDK Split

Split beam transducer



The Simrad ES333-7CDK Split is a compact composite split-beam transducer.

It is rated for maximum 1500 meters depth, and offers three individual sectors. The transducer is designed to be deployed on submerged platforms for underwater science applications.

The beamwidth is 7 degrees at its nominal operational frequency.

The compact size and light weight of the transducer allows it to be mounted on a large variety of subsea platforms. The transducer is provided with two meters cable, and the cable is terminated with an eight-pin male connector that fits directly into our range of subsea transceivers.

The transducer is thus especially well suited for use with autonomous and subsea products such as the WBAT (Wide Band Autonomous Transceiver), WBT Mini and WBT Tube.

Order information

To order the ES333-7CDK Split, contact your local dealer. If you do not have a regular dealer, a list of all our distributors and dealers can be found on our website. Your dealer will also be able to help you with a detailed quotation including price and delivery information.

Transducer

- Order number: 421259

In the box

- Transducer with cable and 8-pin male connector
- Documents

Technical specifications

The technical specifications and requirements provided are design values when operating with all sectors excited simultaneously.

In Kongsberg Maritime, we are continuously working to improve the quality and performance of our products. The technical specifications may be changed without prior notice.

Performance specifications

- Nominal frequency: 333 kHz
- Frequency range: 270 to 445 kHz

The following specifications are valid for the nominal frequency.

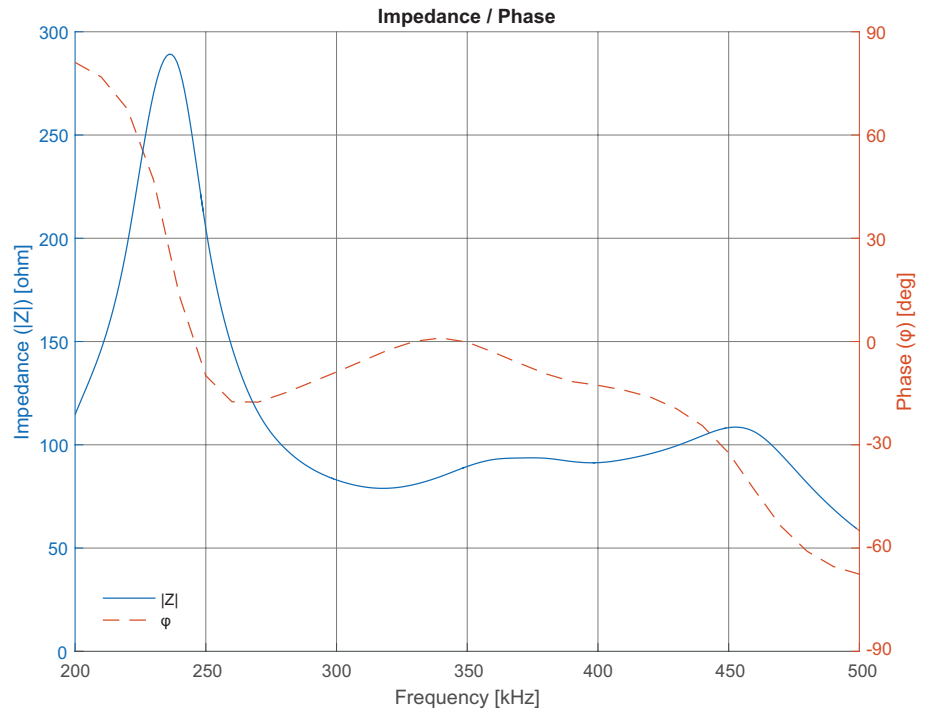
- Beamwidth: 7 degrees
- Equivalent two-way beam angle: 10 log Ψ : -21dB
- Figure of merit(Su+Mv): -15 dB
- Maximum source level: 217 dB re μ Pa @ 1 m
- Transmit sensitivity (Su): 180 dB re μ Pa per V @ 1 m
- Receive sensitivity (Mv): -194 dB re 1 V per μ Pa @ 1 m
- Sidelobe level: -16 dB
- Back radiation level: -30 dB
- Impedance (each sector): 75 Ohm

Power specifications (maximum)

- Input power: 100 W
- Pulse length: 8 ms
- Duty cycle: 1 %

Weight and outline dimensions

- Physical dimensions
 - Diameter: 66 mm
 - Height: 38 mm (body)
 - Total height: 78 mm
- Weight
 - In air: 0.55 kg
 - In water: 0.42 kg
- Cable length: 2 meters
- Termination: 8-pin male subsea connector MCIL8M (MacArtney)
- Nominal cable bending radius: 150 mm (theoretical)



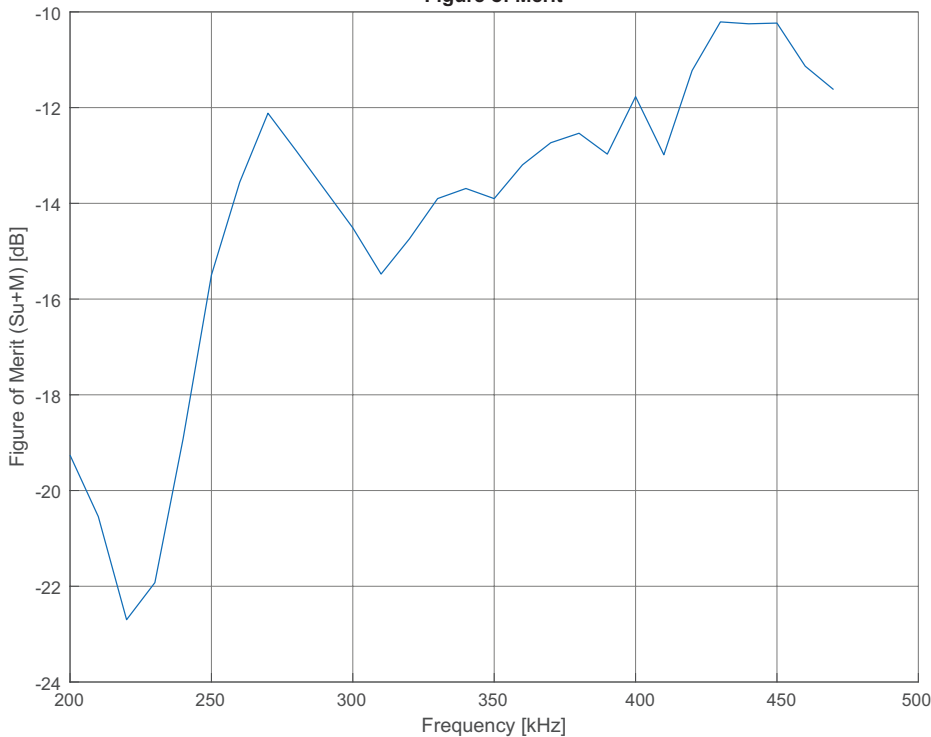
Environmental requirements

- Storage temperature
 - Maximum: +50°C
 - Minimum: -20°C
- Operating temperature
 - Maximum: +40°C
 - Minimum: -5°C

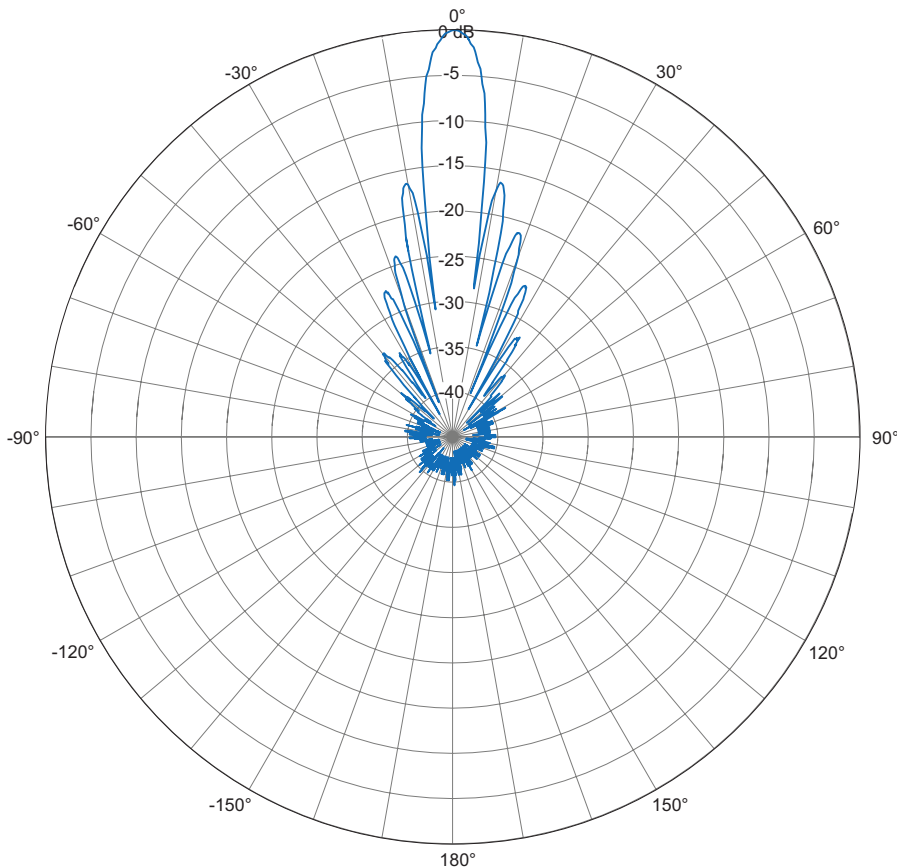
Depth rating

- Maximum 1500 meters

Figure of Merit



Beam pattern at nominal frequency

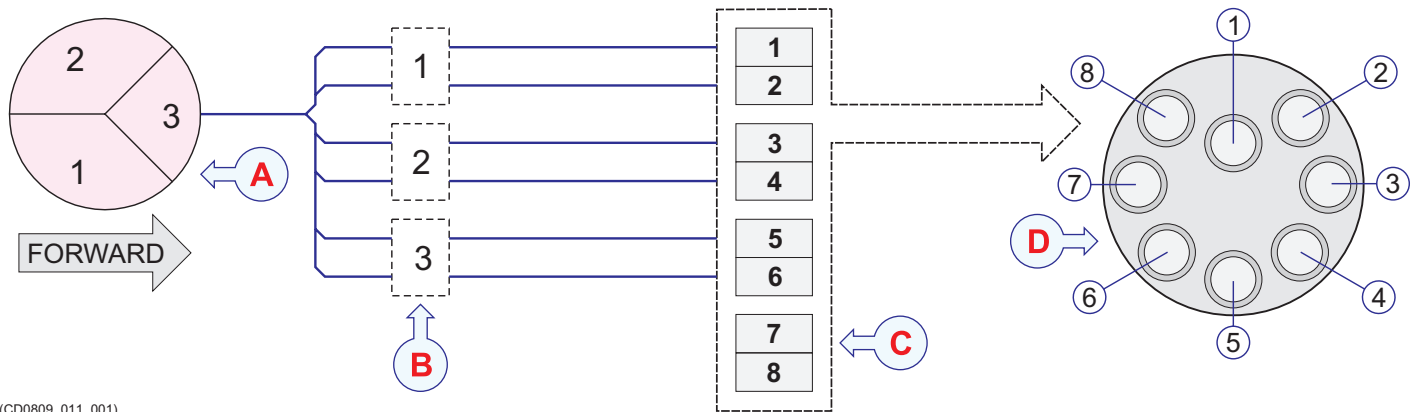


Rules for transducer handling

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

A transducer must always be handled as 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, sand blasting, 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.



(CD0809_011_001)

Connections

The transducer cable is terminated with an 8-pin subsea connector.

- A Transducer seen from top.
Observe the sector locations relative to the forward direction!*
- B Sectors*
- C Pin numbers on the connector*
- D Male face view of the connector*

Cable colours

Sector 1:

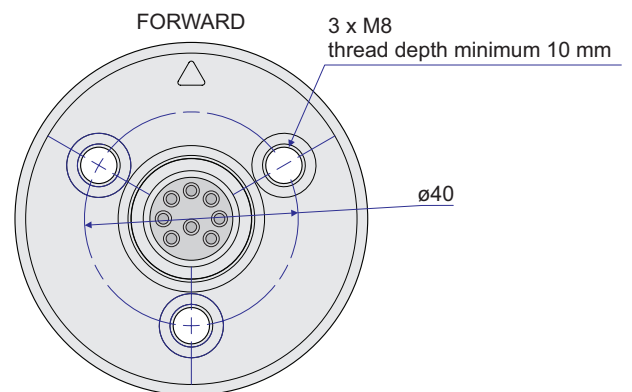
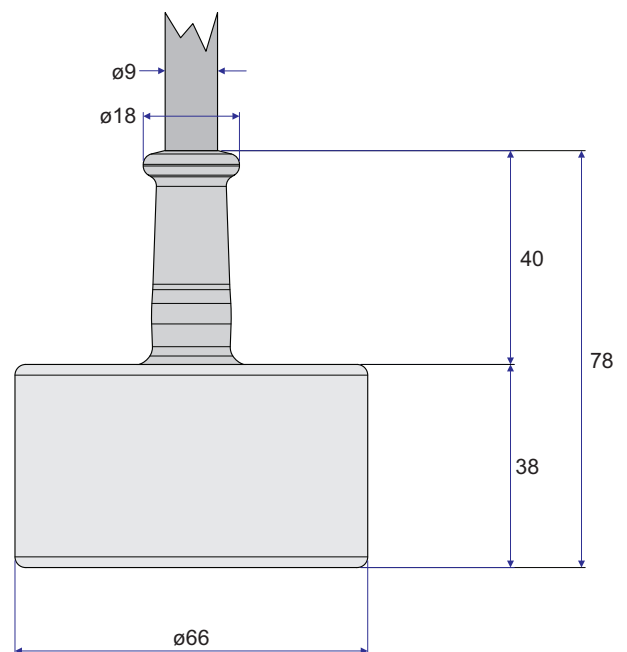
- Black cable to pin 1
- White cable to pin 2

Sector 2:

- Red cable to pin 3
- Green cable to pin 4

Sector 3:

- Orange cable to pin 5
- Blue cable to pin 6



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Simrad

Kongsberg Maritime AS
Strandpromenaden 50
P.O.Box 111
N-3191 Horten, Norway

Telephone: +47 33 03 40 00
Telefax: +47 33 04 29 87
www.simrad.com
simrad.sales@simrad.com

SIMRAD