Spherical Piezo Elements Enable Use in 360° Ultrasonic Applications

PRESS CONTACT

Doris Knauer  
Phone +49 721 4846-1814  
Fax +49 721 4846-1019  
[d.knauer@pi.de](mailto:d.knauer@pi.de)

Physik Instrumente (PI)   
GmbH & Co. KG  
Auf der Roemerstraße 1  
76228 Karlsruhe, Germany  
[www.pi.ws](http://www.pi.ws)

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PI Ceramic now manufactures piezo components as hemispheres and hollow spheres. These types of components are particularly suitable for use as 360° transmitters such as those used in sonar technology.

Piezo components from PI Ceramic are now immediately available as hemispheres or hollow spheres. The outside diameter is between 10 and 60 mm. Larger diameters are available on request. The minimum wall thickness is 1 mm and other dimensions are also possible on customer request.

Applications

Thanks to their design, the components are generally suitable for applications, which function as 360° sound transducers with a high bandwidth. Therefore, piezo components can be used in many different sonar application areas such as underwater communication, underwater monitoring, depth and underground relief measuring or for locating swarms of fish.

Application-Specific Adapted Design

The components are manufactured from ferroelectric soft or hard piezo materials according to the application range. This enables optimum setting with respect to the coupling factor and acoustic impedance. The spheres can be made with a hole or groove for easy mechanical integration.

1,163 characters (incl. blanks)

Figure:



Piezo components as hemispheres and hollow spheres

Further information on hemispheres and other piezo components can be found at:

<http://www.piceramic.com/products/piezo-elements.html>

PI Ceramic in Brief

PI Ceramic is considered a global leading player in the field of piezo actuators and sensors. The broad range of expertise in the complex development and manufacturing process of functional ceramic components combined with state-of-the-art production equipment ensure high quality, flexibility and adherence to supply deadlines. Prototypes and small production runs of custom-engineered piezo components are available after short processing times. PI Ceramic also has the capacity to manufacture medium-sized to large series in automated lines. PI Ceramic, a subsidiary of Physik Instrumente (PI) GmbH & Co. KG, is located in the city of Lederhose, Thuringia, Germany.