PI Ceramic Expands its PICMA® Chip Product Range with Rings and Round Chips With Larger Dimensions

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)

2015-10-26 I PI Ceramic I Products

PICMA® Chip miniature multilayer piezo actuators with up to 16 mm diameter for dynamic applications in the fields of laser tuning, micro dispensing and life science.

PI Ceramic now manufactures two new ring chips in multilayer technology with 12 mm outer diameter, 6 mm inner diameter, and 16 mm outer diameter, 8 mm inner diameter, as well as an overall height of 2.5 mm. The travel range is 2 µm at a control voltage of 100 V. The variant with an outer diameter of 12 mm has a blocking force of more than 2500 N and the variant with 16 mm has a blocking force of more than 4400 N. A round PICMA® Chip with 16 mm outer diameter but without inner hole is a new addition to the product range. The travel range of this chip actuator is 2.3 µm at a control voltage of 100 V and it achieves a blocking force of more than 6000 N.

Flexible Setup of Piezo Stack Actuators with Customized Lengths

The chip actuators can be stacked for PICMA® Stacks with flexible length according to customer requirements. This means that stacked actuators are available at short notice with and without inner hole and with diameters up to 16 mm.

Can be Used in a Number of Application Environments

As with all PICMA® multilayer actuators, the extremely compact chips have all-ceramic insulation free of polymers. That ensures high reliability and lifetime and makes them insensitive to air humidity and suitable for use in a vacuum. Thanks to their microsecond response time, they are particularly suitable for dynamic applications, with limited space requirements.

PIC252 is the material used for manufacturing the PICMA® Chip actuators. The chips can be used in temperature ranges of -40 to 150 °C. The standard connections are PTFE-insulated wires or solderable contacts, custom versions are possible at any time. In addition to the round shape, square versions are also available with and without inner hole.

1,883 characters (incl. blanks)

Figure: PI\_PDxxx\_PICMA\_Chip.jpg



PICMA® Chip round & ring chips in different sizes

For more information, refer to: <http://www.physikinstrumente.com/product-detail-page/pd0xx-100850.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.