

center of gravity inertia tensor



A high-precision inertia measurement system for small objects

## MEASUREMENT SYSTEM

Resonic K is composed of a rotatory air bearing with a vertical axis and a carrier for the test object. The bearing is constrained by soft springs and has three v-grooves on its top. The carrier has twelve ball studs on its surface which lock into the v-grooves in different combinations of three. This allows 24 well-defined positions of the carrier.

The measurement works as follows: The Resonic software defines three ball studs which will be used to position the carrier into the grooves. Once a free oscillation is initiated by the user, the software measures the frequency for about 15s. This process will be repeated for 12 to 24 different ball-stud combinations. After that, the software determines the complete inertia properties of the test object.

## **BENEFITS**

- very high accuracy
- fast and easy measurement process
- low error potential because of foolproof positioning
- suitable for large and wide objects
- complete inertia properties, including center of gravity and products of inertia

## MEASURABLE OBJECTS

Resonic K is suitable for objects below 20kg, including

- flywheels
- crankshafts
- rotary compressors
- vehicle doors
- small satellites and drones
- ship models
- hand tools
- sports equipment (golf clubs etc.)



Please contact us for further information about our technology and measurement services (at our facilities or directly at your site).

Resonic GmbH Marie-Elisabeth-Lüders-Str. 1 10625 Berlin

Tel.: +49 (30) 609 873 451

info@resonic.de www.resonic.de

