



EI 20 in suitcase with accessories and the A 735 amplifier

AIM OF THE EXCITER

The shakers used during the in-flight tests are normally electro dynamical shakers; their technology is adapted to the particular conditions of such tests. They should deliver the important power required. Like during the GVT tests, an important number of excitation points simplifies the isolation of coupled modes.

The particular conditions of such tests suppose:

- A specific architecture for horizontal or vertical excitation
- Compact dimensions and low mass
- Important stroke
- Resistance against external excitations
- A design compatible with the environment and the security

MAIN FEATURES

The inertial shaker type **EI 20** delivers a force of around 40 N. The moving assembly is composed of a magnetic circuit, and is guided by two low friction bearings, providing a high amplitude movement without transversal movements.

USED AS A PORTABLE VIBRATOR



Courtesy Dassault Aviation

One of the main difficulties during a vibration test consists in checking that all the transducers are properly wired. This task is even more complicated when the wiring is performed inside the structure, as for example during an in-flight test.


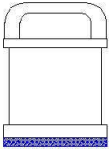

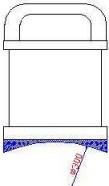

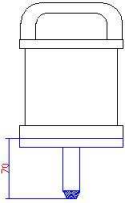
The inertial shaker **EI 20** can be used to locally generate a low level excitation force following a precise direction. In this way, only transducers in the same axis will react, therefore it is possible to identify them in the measurement chain.

TECHNICAL FEATURES

Type of excitation	Vertical or horizontal
Maximum force	~ 40 N
Maximum peak current	4 A
Force coefficient	10 N/A
Frequency range	DC up to 5000 Hz
Maximum stroke	± 5 mm
Moving assembly mass	1.3 kg
Total mass	2.4 kg
Suspension	With springs
Suspension cut-out frequency	3 Hz
Cooling system	By free air convection
Dimensions	Height: 109 mm External diameter: 120 mm
Associated amplifiers	A 732 or A 735

ACCESSORIES

The contact between the shaker and the structure can be performed using the following accessories:

		TYPE 1 : Flat base plate	Flat Teflon base plate (10 mm thick)
		TYPE 2 : Round base plate	Curved base plate with a diameter of 300 mm.
		TYPE 3 : Base plate with point	Teflon point at the end of an aluminium support. Possibility to fix a force transducer (not included)

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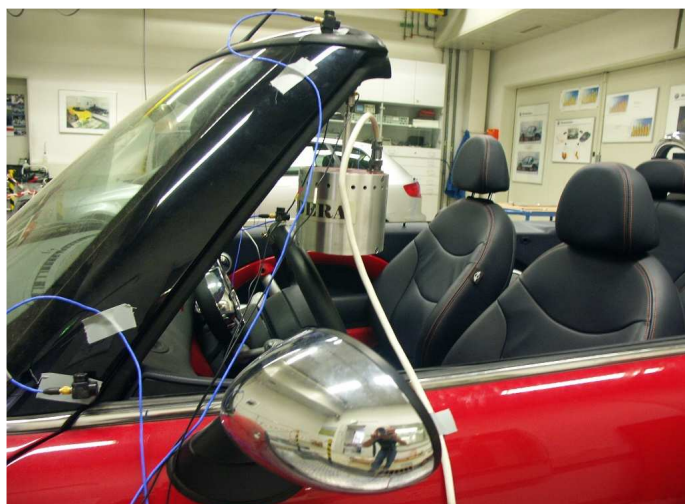
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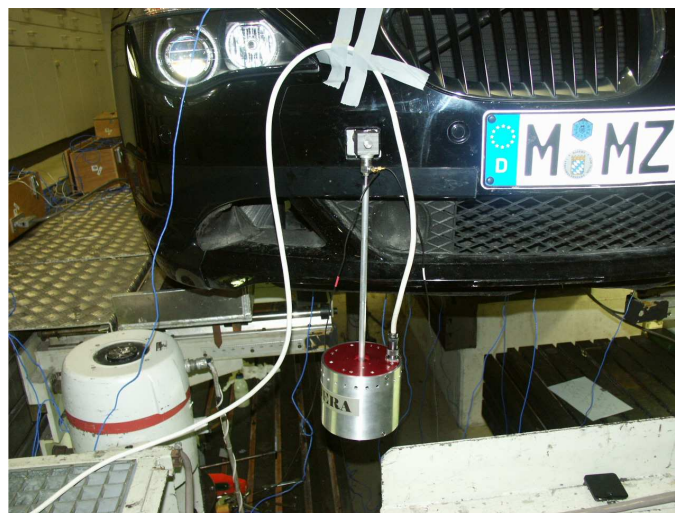


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AUTOMOTIVE APPLICATIONS

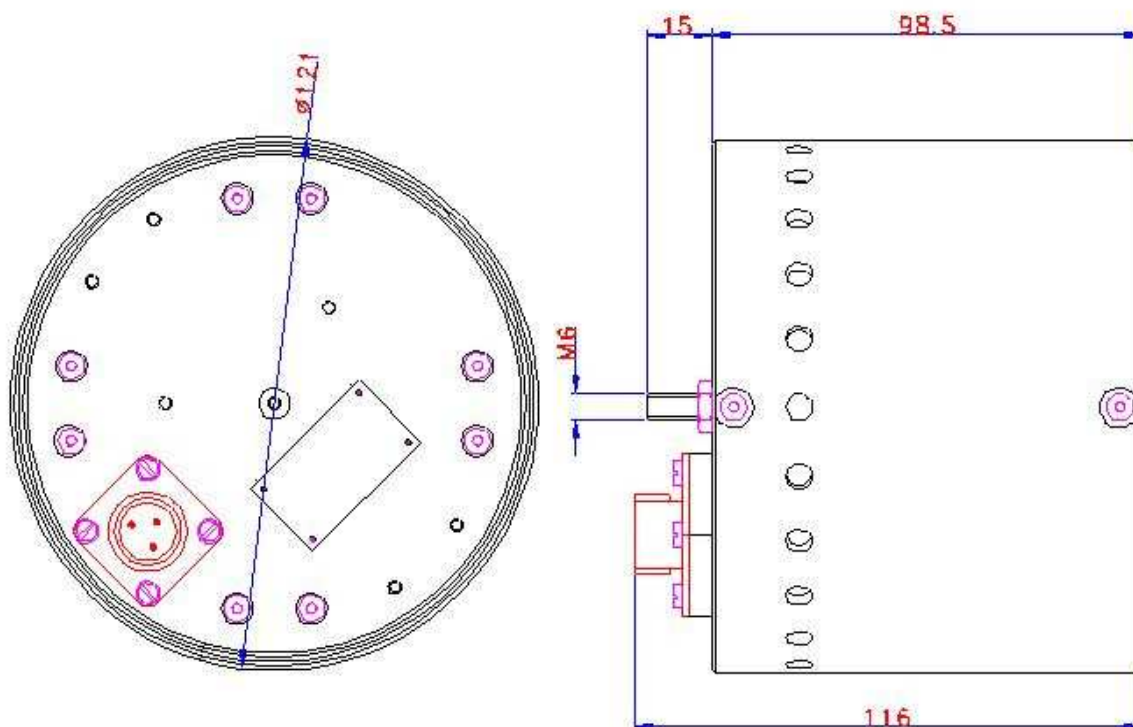


Courtesy BMW



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DIMENSIONS



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