# EXCITER



 Type EX 6/3-2 A.: 3 N
 Type EX 6/4-4 A.: 4 N

 Type EX 6/4-2 A.: 4 N
 Type EX 6/6-4 A.: 6 N



## **AIM OF THE EXCITERS**

The aim of the exciters is to transform the current produced by an amplifier into a proportional force which, applied on appropriated points of a structure, sends a vibratory movement to this structure.

## **MAIN FEATURES**

Free coil and big air gap exciter used to generate forces from 3 to 6 Newton in a frequency range reaching 9,000 Hz loaded and 18,500 Hz without load.

Small and light moving coil weighing between 9 and 14 grams according to the composition. Magnetic circuit with permanent magnet and a field strength in the air gap of about 3,000 gauss.

## **APPLICATIONS**

The insignificant inertia and damping added to the structure under tests by its non suspended and low weight moving coil make the EX 6 exciter especially suitable for modal analysis on both scale models and small structures.

# **FEATURES**

#### **MAGNETIC CIRCUIT**

Dimensions:	External diameter: 55 mm	<u>Height</u> : 31 mm	<u>Weight</u> : 300 grams
Attachment:	Hole 1/4 20 Kodak thread		

#### **MOVING COIL**

The magnetic circuit can receive different types of coils according to the application.

- Rigidity: light armature (A), or rigid armature (B) a)
- Maximum amplitude at the frequencies range: short coil HF, or large coil BF b)
- Force ranging between 2 and 6 N according to the coil and the amplifier c)
- Suitable frequency according to the type of armature and coil d)

Coil armature weight:	light: 2.5 grams - rigid: 4 grams
Attachment hole:	3 ISO
Electrical connection:	by flexible thread and socket FRB 002 - length: 1 m - ref.: 6943010
Cable used:	Ref. CL2-5 – length: 5 meters; maximum resistance: 0.3 Ohm

	SHORT COIL H.F.		LARGE COIL B.F.	
	EX 6/3.2	EX 6/4.4	EX 6/4.2	EX 6/6.4
Maximum force	3	4	4	6
Coil reference	694 3001	694 6001	694 3002	694 6002
Load factor N/A	1.5	1	2	1.5
Associated amplifier	A 732/2 A	A 732/4 A	A 732/2 A	A 732/4 A
Nominal current peak amplitude	2 A.C.	4. A.C.	2 A.C.	4 A.C.
Coil impedance at 1 kHz with cable	3.3 Ohm	1.7 Ohm	5.5 Ohm	3.1 Ohm
Coil resistance at 20°C	1.6 Ohm	0.7 Ohm	2.6 Ohm	1.1 Ohm
Maximum amplitude in mm	± 1.5 mm	± 1.5 mm	± 3 mm	± 3 mm
Usable frequency range with nominal	DC to	DC to	DC to	DC to
current of the amplifier <sup>1</sup>	20,000 Hz	20,000 Hz	15,000 Hz	8,000 Hz
<ul> <li>Fundamental armature resonance in Hz</li> <li>Without load</li> <li>With light armature (A) - in load<sup>2</sup> <ul> <li>without load</li> </ul> </li> <li>With rigid armature (B) - in load<sup>2</sup></li> </ul>	7,700 4,100 17,000 8,200	8,500 4,900 18,500 9,100	7,000 3,700 16,400 7,800	8,500 4,000 17,000 8,600
Coil weight in grams: With light armature (A) With rigid armature (B)	8.5 10	10.5 12	11 12.5	13.5 15

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#### **OPTIONS:**

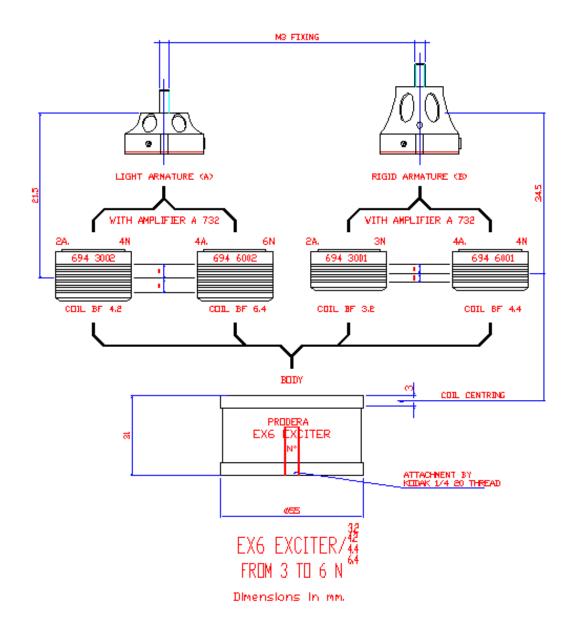
- Mechanical link reference L23; •
- Mechanical adjustable link reference LMA 3 •
- 1 With associated amplifier at 100 % of the force and 1 % of distortion 2

50 gram test weight without load with an accelerometer of 3 grams

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## DIMENSIONS



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