# **EXCITER**

Type EX 8/4-2 A.: 4 N Type EX 8/5-4 A.: 5 N Type EX 8/8-4 A.: 8 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 4 to 8 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 3,600 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 8 exciter especially suitable for modal analysis on both scale models and small structures.

## **FEATURES**

#### **MAGNETIC CIRCUIT**

Dimensions External diameter: 83 mm Height: 51 mm Weight: 1.5 kg

Attachment: Hole 1/4 20 Kodak thread

#### **MOVING COIL**

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

a) Rigidity: light armature (A), or rigid armature (B)

b) Maximum amplitude at the frequencies range: short coil HF or large coil BF

c) Force ranging between 4 and 8 N according to the coil and the amplifier

d) Suitable frequency according to the type of armature and coil

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 m; maximum resistance : 0.3 Ohm

	SHORT COIL H.F.		LARGE COIL B.F.	
	EX 8/4.2	EX 8/5.4	EX 8/5.2	EX 8/8.4
Maximum force in Newton	4	5	5	8
Coil reference	694 3001	694 6001	694 3002	694 6002
Force factor N/A	2 N/A	1.25 N/A	2.5 N/A	2 N/A
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	± 1.5	± 3	± 3
Usable frequency range with nominal current of the amplifier*	DC to 20,000 Hz	DC to 20,000 Hz	DC to 15,000 Hz	DC to 8,000 Hz
<ul> <li>Fundamental armature resonance in Hz</li> <li>Without load</li> <li>With light armature (A) - in load** <ul> <li>without load</li> </ul> </li> <li>With rigid armature (B) - in load**</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

\* With associated amplifier at 100 % of the force and 1 % of distortion

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

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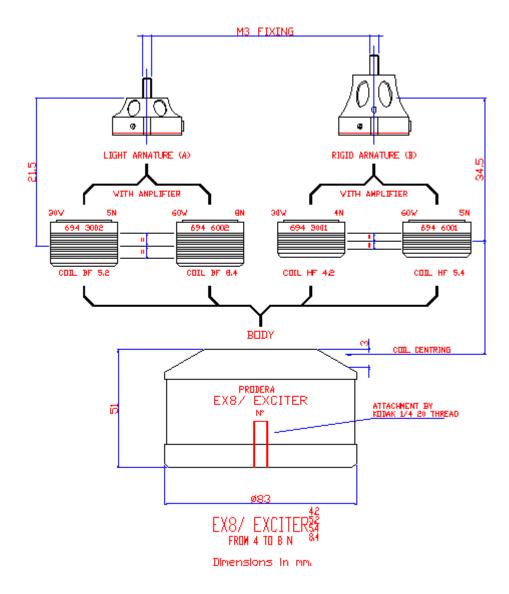


**PRODERA** 

#### **OPTIONS:**

- Mechanical link reference L23
- Mechanical adjustable link reference LMA 3 Linear elastic cord system reference S 8L

## **DIMENSIONS**



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