



PROJECT: M9701 Piezoelectrics transducers dynamic calibrator

Commercial name: M9701a – M9701b

Description: High pressure hydraulic pulse generator

Purpose: Dynamic comparative ballistics piezoelectric transducers calibration. The calibration value is obtained by comparing transducer under test and reference transducer data. Thanks to the design of the piezo's receptacle, both reference and device under test were subjected to the same pressure.

Main characteristics

L' M9701 is a high pressure pulse generator developed for the dynamic calibration of transducers used in ammunition testing. The system generates pressure pulse with rise and fall time and slope comparable with the real pressure curve generated by an ammunition.

The system is reliable, safe and easy to use, and operates with non-toxic, non-allergic, non-inflammable working fluids. The suitable working fluid for M9701 series are:



M1: water soluble and fully biodegradable fluid suitable for pressure up to 1000

M2: fully biodegradable fluid suitable for pressure up to 6500 bar;

M3: silicon-based fluid suitable for pressure over 6500 bar.

The M9701 family is composed of 3 types of pulse generators that share the same operating fluids and piezo adapters. All systems adopt protections to avoid unsafe operations..

M9701a: Compact pulse generator powered with compressed air. This type of pulse generator can rise pressure over 2500 bar with inlet air pressure of 10 bars. System does not require electric energy to work because it is fully pneumatic.

← M9701b: free falling, mass pulse generator with electric lifting and releasing of the heavy body. This system can generate pressure over 6500 bar (picture on the left);

M9701b-HP like the M970a but for pressure up to 10000bars .

Adapters
With pulse generator are supplied different type of adapters to be used with different type of piezoelectric transducer.



Dimension :

M9701a :500 x 500 x 1600h (mm), approx.



weight 100 Kg (picture on the right).

M9701b :500 x 500 x 3250h (mm), approx. weight 150 Kg.

M9701b-HP :500 x 500 x 3500h (mm), approx. weight 170 Kg.

The total height can be modified on customer request, the standard height of the work top is 1200 mm.

The system is in accordance with the international safety rules..

Pressure generators must be connected to suitable software and data logger. We suggest our data logger BY2K and the software XBAL 9.0 with piezo calibration module.

© Painsi Sistemi Italcaccia s.r.l 2005

Data subject to change without notice.

PAINI SISTEMI ITALCACCIA s.r.l.

Electronics & Systems Division

Via Rossini 8 43011 Busseto (PR) Italy

Tel.+39 0524 332150 e-mail: info1@painsi-esd.it

[URL: www.painsi-esd.it](http://www.painsi-esd.it)



*quam ludus durus fuit
duri ludere incipiunt*

Paini Sistemi

Electronics & Systems division