



mobility.loccioni.com

PRESSURE INTENSIFIER



Via Fiume 16
60030 Angeli di Rosora, Ancona, Italy
p +39 0731 8161 f +39 0731 814700
info@loccioni.com - www.loccioni.com

INJECTORS

Loccioni Mobility has designed and developed a pressure generation system for the testing of common rail and GDI injectors and other automotive components (from 600 bar for gasoline up to 3000 for diesel).

The system for generating pressure is based on the principle of pressure multiplication through a piston and two different terminal sections.

The relationship between the areas at low and high pressures, and therefore the multiplication relationship vary from 1:4 up to 1: 10.

The system is piloted by a servo valve controlled in closed loop by a piezoelectric pressure trasducer. The servo valve accurately regulates the pressure of the oil in the low pressure room in ways to obtain the imposed pressure levels (set point) in the high pressure cylinder.

TECHNICAL FEATURES

Volume for each charge

- > 900 cc for gasoline application
- > 300 cc for diesel application

Stability of the static regulations

- > +/- 0,05% FS

Frequency of the intervention of the valve

- > 500 Hz

Linearity of the pressure trasducer

- > 0,1% FS

Range of dynamic functions

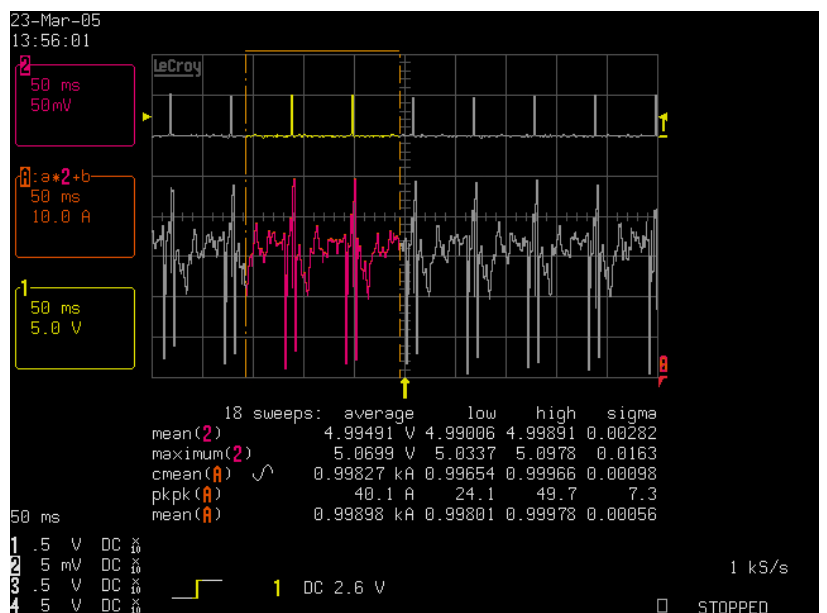
- > (injector at 1600 bars 40 Hz and 1600 μs of PW) +/- 0,2% of the set point

> Duration estimated without intervention

500.000 cycles



1. Pressure intensifier



2. Example of pressure acquisition