

Abstract

The present invention provides an ultra-precision micro-differential pressure measuring device which is capable of continuously measuring a
5 micro-differential pressure with high precision by transmitting the micro-differential pressure to an electronic weighing and pressure converting device without passing through any mechanical sliding part, and is simple in structure and can lower manufacturing costs substantially.

The ultra-precision micro-differential pressure measuring device
10 comprises a device body 1 having an inner space part therein, a pressure receiving plate 3 which is installed inside the inner space of the device body 1 and divides the said inner space hermetically into a lower space 7 and an upper part space 8, an electronic weighing and pressure converting device 2 which is installed in the lower space 7, and supports and secures the pressure receiving
15 plate 3, and a liquid sealing part R which liquid-seals the outer peripheral part of the afore-mentioned pressure receiving plate 3 and maintains the air-tightness between the lower space 7 and the upper space 8. A micro-differential pressure between a pressure P1 inside the upper space 8 and a pressure P2 inside the lower space 7 is measured by the electronic weighing and pressure
20 converting device 2 through the pressure receiving plate 3.