USB Vacuum Transducers

Dominik Plöchinger[1]
[1]Thyracont Vacuum Instruments GmbH, Max-Emanuel-Straße 10, 94036 Passau

ABSTRACT

The new development of this sensor generation describes different types of transducers with a USB-C interface. The new communication via USB-C increases the flexibility and enables quick and easy interconnection to other portable devices. Such compatibility allows a plug & play connection to all common computers or Android smartphones in order to diplay the measured vacuum precisely and quickly during process monitoring. There is no need for a seperate power supply, as the reduced power consumption of the device is covered by all standard computers and smarthpones.

An exact digital readjustment to atmospheric or zero pressure, as well as many other functions which support the monitoring, can be carried out intuitively using our VacuGraphTM software, which is available for various operating systems. In addition, the software is supplemented by the Android app VacuSniff to support visualization of measurements on smartphones and tablets.

The different variants, such as the Piezo sensor and the Piezo/Pirani combination sensor, cover a measuring range from absolute pressure of 2000mbar to 5e-5mbar and are therefore suitable for a wide range of applications.

The combination of mobile devices and USB-C allows to put sensors into operation while the vacuum process is running and can this way upgrade the process with improved monitoring. Due to the simple evaluation and the easy communication, the sensors are also ideally suited for laboratory applications.

Due to the compact design of the housing, a reduced space is required. Furthermore, the sensors are suitable for UHV applications based on their metal-sealed measuring cell.

Presenation: Oral