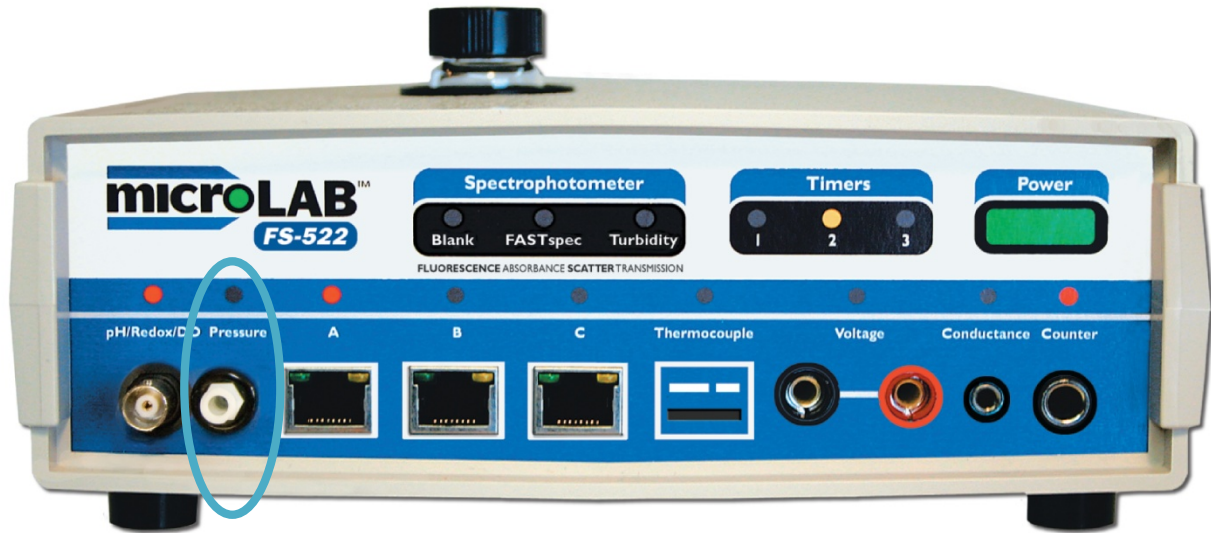


The MicroLab FS-522 pressure sensor is an absolute sensor. It measures the pressure differential between the pressure present at the Luer hose fitting on the front of the 522 and that of a vacuum inside the sensor.



A small silicon diaphragm covers an evacuated cylinder in the sensor. This diaphragm has an electronic strain gauge on its surface; expansion or contraction of this diaphragm is monitored by an electronic strain gauge which is attached to the surface of the diaphragm. This strain gauge changes resistance as the diaphragm flexes with changes in external pressure. Electronic circuitry amplifies this change, corrects for changes in temperature, and transmits a signal proportional to the applied absolute pressure to the MicroLab. A flexible silicon gel covers the sensing element to protect it from gases in the system. The sensor can accurately measure absolute pressures in the range of 0-200 kPa (0-29 psi). The sensor will respond to pressure changes in 1 millisecond and is factory calibrated in atm, torr, inches Hg and kPa. When operated in the FS-522, it will reliably detect changes in pressure of about 0.03 torr or 0.0004 kPa.

