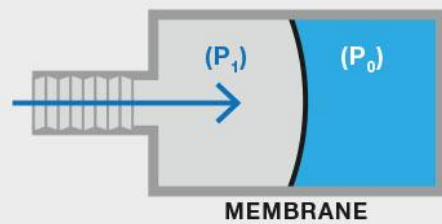


Various pressure modes measured by pressure sensors:

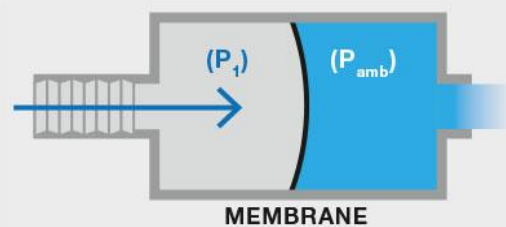
PRESSURE (P_1) \geq VACUUM (P_0) \rightarrow ABSOLUTE PRESSURE SENSORS



Absolute Pressure Sensors measure the pressure in comparison to the absolute vacuum P_0 .

Absolute pressure sensor ($P_1 - P_0$ for measuring pressure, P_0 for vacuum pressure at zero)
symbol – A

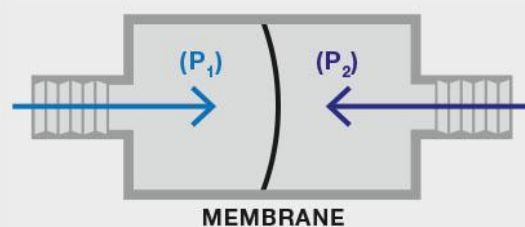
PRESSURE (P_1) \geq AMBIENT (P_{amb}) \rightarrow RELATIVE PRESSURE SENSORS



Relative Pressure Sensors measure the difference between the ambient pressure and the measuring pressure P_1 .

Relative pressure sensor (gauge pressure, $P_1 - P_{amb}$ measures the pressure difference between two sides, P_{amb} ambient pressure, usually atmospheric pressure, which is actually a differential pressure sensor)
symbol – G

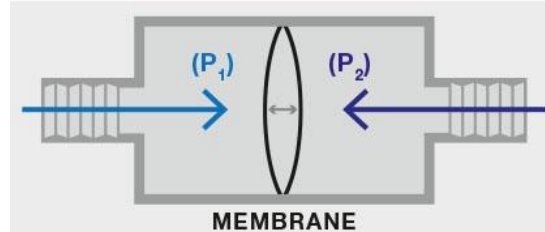
PRESSURE (P_1) \geq PRESSURE (P_2) \rightarrow DIFFERENCE PRESSURE SENSORS



Difference Pressure Sensors measure the difference between two measuring pressures P_1 and P_2 .

Differential pressure sensor ($P_1 - P_2$ measures the pressure difference between the two sides, always $P_1 \geq P_2$)
symbol – D

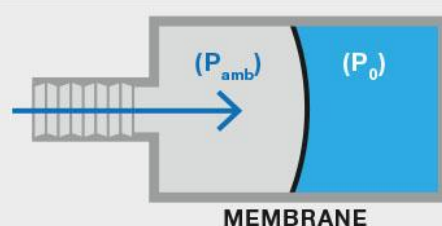
PRESSURE (P_1) $\leq \geq$ PRESSURE (P_2) \rightarrow BIDIRECTIONAL PRESSURE SENSORS



Bidirectional Difference Pressure Sensors measure the difference between two measuring pressures P_1 and P_2 , both as low- and high-pressure.

Bidirectional differential pressure sensor ($P_1 - P_2$ measures the pressure difference between the two sides, P_1 can be greater or less than P_2)
symbol – D-B

AIR-PRESSURE (P_{amb}) \geq VACUUM (P_0) \rightarrow BAROMETRIC PRESSURE SENSORS



Barometric Pressure Sensors measure the air-pressure P_{amb} .

Atmospheric pressure sensor ($P_1 - P_0$ measures atmospheric pressure, P_0 measures vacuum pressure to zero, sensor calibration range is 700-1200mbar, which can improve the accuracy of measuring atmospheric pressure)
symbol – B