WORKING:

A pressure switch permits to send an electric or pneumatic signal in correspondence of the reaching of an established pressure in the setting phase by the user or directly by the manufacturer.
To reach this object can be used different production types.
The FOX mechanical pressure switches change over a micro switch with exchange contacts, except for the K4 series that works with a normal open or normal closed electric contact.
The FOX electronic pressure switches join the technology of the ceramic sensors with the electronics of the boards especially studied by his technicians to permit the commutation of an electronic micro switch or a relay.

DEFINITION AND TERMINOLOGY:

- **Commutation frequency:**
  This value represents the maximum theorist limit to which is possible to carry the number of cycles, which the instrument is subject, without compromise the sequence of the periodic succession of the phases of dispatch of the signal and of the resetting.

- **Operating accuracy:**
  This datum is referred to the possible accuracy for setting the instrument, it represents the repeatability index and, in other terms, the maximum deviation of the operating point of the instrument towards the settled pressure, in the same environment and operating conditions.
- **Hysteresis:**
  This word indicates the pressure interval that the instrument needs to reset after having sent a signal at the reaching of the settled pressure. This index is firm for the pressure switches with a mechanical execution as intrinsically is tied to the constructive choices operated by the designers, while in the electronic pressure switches this value can be adjusted by the user accordingly to his necessity.
  For the mechanical execution the indicated value is the hysteresis at the mid point of pressure switch working range.
  If the working pressure moves away from that point the hysteresis can increase
- **Seal:**
  It is employed in the pressure switches used to work at high pressures with a piston execution. This execution has the function to permit the axial moving of the piston avoiding in the same time, due to the radial thrust generated, that the fluid in pressure draws inside the instrument.
- **Membrane:**
  It is used in the pressure switches studied to work at low pressures. The membrane realizes the direct interface with the fluid in pressure offering a large contact surface that guaranties a high sensibility to the small pressure variations. On the analogy to what said for the seals, it is essential for the correct working and for the length of the pressure switch's life, in case it should work with aggressive fluids, that the membrane has the characteristics of compatibility with these ones; therefore FOX offers an assorted range of membranes, different from the standard ones.
- **Mechanical life**:
  This value means the least number of cycles that the pressure switches can guarantee without electric loads on the contacts.

Note *: the number of cycles inversely decreases in proportional way to the present load on the electric contacts

Copyright © www.fox.it
FOX S.r.l. Via Romagna 6 – 20090 Opera – Milano
Tel +39.02.57.60.00.33 - +39.02.57.60.65.43 Fax +39.02.57.60.01.76