



Application Notes

Rev. 03/03/06

Below is a list of Pressure Sensor Terms and their definitions:

1. **Burst pressure**
Maximum pressure that may be applied to the sensor without rupture. No physical damage is allowed to the sensor, but it may need factory recalibration as it may strain the sensors internal mounting. BAPI's ZPS burst pressure is 10psi. To date, no ZPS unit has required factory recalibration when subjected to these pressures.
2. **Proof pressure**
Maximum pressure that may be applied without changing the transducer performance beyond specified tolerances. BAPI's ZPS proof pressure is 5psi.
3. **Bidirectional**
Takes the specified range and turns it into plus or minus of that range. The output signal is at the center of the range at zero pressure. The procedure used to turn the ZPS into a bidirectional unit is in the ZPS Installation and Operation document 13086_ins_zps_display.pdf available through your friendly BAPI representative.
4. **Auto Zero**
Field calibration of the zero pressure output. The procedure used to auto zero the ZPS is in the ZPS Installation and Operation document 13086_ins_zps_display.pdf available through your friendly BAPI representative.
5. **Range**
Specified endpoint pressures
6. **Span**
Arithmetic difference between two pressure endpoints
7. **Sensitivity**
Ratio of output signal change to a corresponding input pressure change
8. **Pressure**
Force per unit area
9. **Velocity**
Displacement per unit time
10. **Absolute Pressure**
Pressure measured relative to a perfect vacuum
11. **Differential Pressure**
Pressure difference measured between two pressure sources
12. **Gauge Pressure**
Differential pressure between the local ambient pressure and another pressure source
13. **Static pressure**
Pressure on the walls of a vessel at right angle to any flow. Static pressure is usually measured with a static pressure probe. ZPS/ACC07 or ZPS/ACC08
14. **Velocity pressure**
Pressure caused by the momentum of moving air Velocity pressure is usually measured with a pitot tube assembly. ZPS/ACC11 or ZPS/ACC12
15. **Total pressure**
Arithmetic sum of static pressure and velocity pressure. Total pressure is usually measured with a total pressure tube.

If you have any additional questions, please contact your BAPI representative.