



ASDXAC Low and Ultra-Low AC Serial Pressure Sensor

General Description:

The ASDX Series is a Silicon Pressure Sensor offering a ratiometric analog output for reading pressure over the specified full scale pressure span and temperature range.

The ASDX is fully calibrated and temperature compensated for sensor offset, sensitivity, temperature effects and non-linearity using an on-board Application Specific Integrated Circuit (ASIC). Calibrated output values for pressure are updated at approximately 1 kHz.

The standard ASDX is calibrated over the temperature range of 0 °C to 85 °C [32 °F to 185 °F]. The sensor is characterized for operation from a single power supply of either 3.3 Vdc or 5.0 Vdc.

These sensors are available to measure absolute, differential and gage pressures. The absolute versions have an internal vacuum reference and an output value proportional to absolute pressure. Differential versions allow application of pressure to either side of the sensing diaphragm. Gage versions are referenced to atmospheric pressure and provide an output proportional to pressure variations from atmosphere.

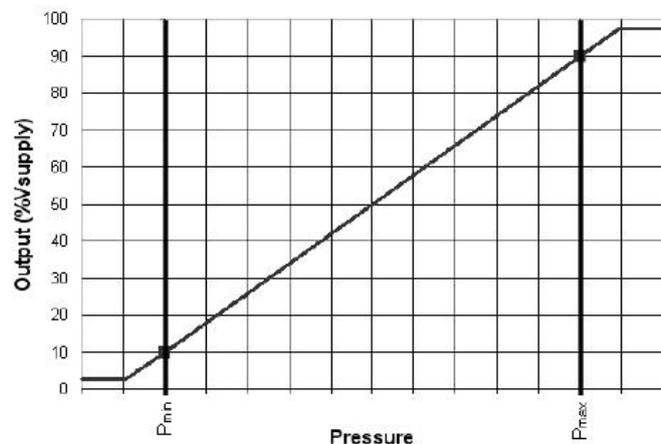
The ASDX Series sensors are intended for use with noncorrosive, non-ionic working fluids such as air and dry gases. They are designed and manufactured according to standards in ISO 9001.



Features:

- Ratiometric 12-bit analog output
- Precision ASIC conditioning and temperature compensated over 0 °C to 85 °C [32 °F to 185 °F] temperature range
- Low operating voltage
- Absolute, differential and gage types
- Pressure ranges from 10 inches H2O to 100 psi Standard calibrations in inches H2O, cm H2O, psi, mbar, bar, kPa
- Total error band of $\pm 2.0\%$ of full scale span maximum
- RoHS compliant

Calibration, 10% to 90%



$$\text{Output (volts)} = \frac{0.8 \cdot V_{\text{supply}}}{P_{\text{max}} - P_{\text{min}}} \cdot (\text{Pressure}_{\text{applied}} - P_{\text{min}}) + 0.10 \cdot V_{\text{supply}}$$

Applications:

- Flow calibrators
- Ventilation and air flow monitors
- Gas flow instrumentation
- Sleep apnea monitoring and therapy equipment
- Barometry
- Pneumatic controls
- HVAC

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
ASDXACX015PA2A5	1784653	34R2746	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX015PA7A5	1784654	34R2747	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX015PAAA5	1784655	34R2745	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX030PA2A5	1784656	34R2749	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX030PA7A5	1784657	34R2750	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX030PAAA5	1784658	34R2748	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX100PA2A5	1784659	34R2752	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX100PA7A5	1784660	34R2753	Low and Ultra-Low AC Serial Pressure Sensor
ASDXACX100PAAA5	1784661	34R2751	Low and Ultra-Low AC Serial Pressure Sensor