



ASDXAV Low and Ultra-Low AV 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.

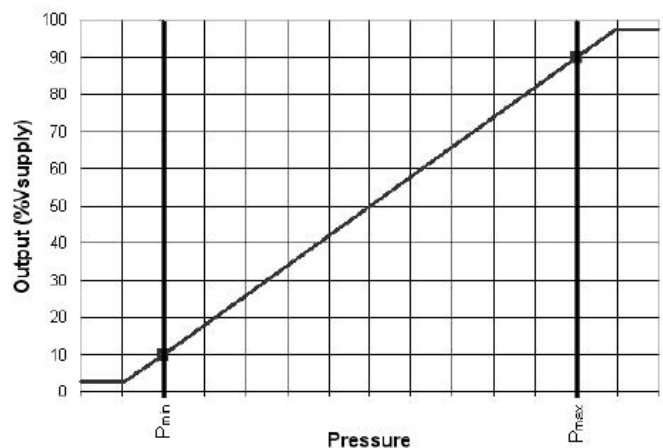
These sensors are available to measure absolute, differential and gage pressures. The absolute versions have an internal vacuum reference and an output value proportional to absolute pressure. Differential versions allow application of pressure to either side of the sensing diaphragm. Gage versions are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

Key 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
ASDXAVX001PG2A5	1784662	11R0659	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX001PGAA5	1784664	11R0658	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX005PG2A5	1784665	11R0661	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX005PGAA5	1784666	11R0660	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX010NG2A5	1784667	34R2286	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX010NG7A5	1784668	34R2287	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX010NGAA5	1784669	34R2285	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX015PG2A5	1784670	34R2755	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX015PG7A5	1784671	34R2756	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX015PGAA5	1784672	34R2754	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX030PG2A5	1784673	34R2758	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX030PG7A5	1784674	34R2759	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX030PGAA5	1784675	34R2757	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX100PG2A5	1784676	34R2761	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX100PG7A5	1784677	34R2762	Low and Ultra-Low AV Serial Pressure Sensor
ASDXAVX100PGAA5	1784678	34R2760	Low and Ultra-Low AV Serial Pressure Sensor