



ASDXAC Low and Ultra-Low RR 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.

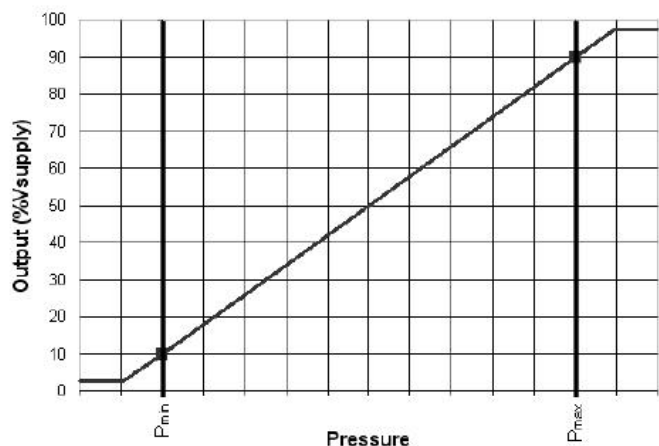
The ASDX Series sensors are intended for use with noncorrosive, non-ionic working fluids such as air and dry gases. They are designed and manufactured according to standards in ISO 9001.



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 ±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
ASDXRRX001PD2A5	1784680	11R0663	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX001PDAA5	1784681	11R0662	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX001PG2A5	1784682	11R0665	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX001PGAA5	1784683	11R0664	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005ND2A5	1784684	34R2289	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005ND7A5	1784685	34R2290	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005NDAA5	1784686	34R2288	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005PD2A5	1784688	11R0667	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005PDAA5	1784689	11R0666	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005PG2A5	1784690	11R0669	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX005PGAA5	1784691	11R0668	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010ND2A5	1784692	34R2292	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010ND7A5	1784693	34R2293	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010NDAA5	1784694	34R2291	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010NG2A5	1784695	34R2295	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010NG7A5	1784696	34R2296	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX010NGAA5	1784697	34R2294	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PD2A5	1784698	34R2764	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PD7A5	1784700	34R2765	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PDAA5	1784701	34R2763	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PG2A5	1784702	34R2767	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PG7A5	1784703	34R2768	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX015PGAA5	1784704	34R2766	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX030PDAA5	1784706	34R2769	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX030PG2A5	1784707	34R2771	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX030PG7A5	1784708	34R2772	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX030PGAA5	1784709	34R2770	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX100PD2A5	1784710	34R2773	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX100PD7A5	1784711	34R2774	Low and Ultra-Low RR Serial Pressure Sensor

ASDXRRX100PG2A5	1784712	34R2776	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX100PG7A5	1784713	34R2777	Low and Ultra-Low RR Serial Pressure Sensor
ASDXRRX100PGAA5	1784714	34R2775	Low and Ultra-Low RR Serial Pressure Sensor

