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Part Number: 5PSI-D-4V-ASCX, Compatible to Sensym ASCX Series

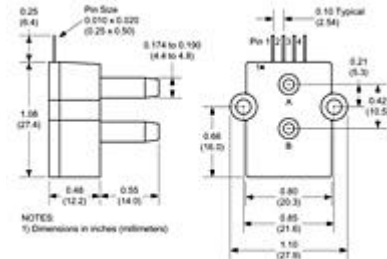
Compatible to Sensym ASCX Series

The Amplified line of middle pressure sensors is based upon a proprietary package technology to reduce errors. This model provides a ratiometric 4.5-volt output span with superior output characteristics. The sensor housing has been designed specifically to reduce package induced parasitic stress and strain. In addition the sensor utilizes a silicon, micromachined, stress concentration enhanced structure to provide a very linear output to measured pressure.

These calibrated and temperature compensated sensors give an accurate and stable output over a wide temperature range. Each sensor is internally compensated using an ASIC compensation technique. This series is intended for use with non-corrosive, non-ionic working fluids such as air, dry gases and the like.

The output of the device is ratiometric to the supply voltage over a supply voltage range of 4.5 to 5.5 volts.

All parameters are measured at 5.0 volt excitation, for the nominal full scale pressure and room temperature unless otherwise specified. Pressure measurements are with positive pressure applied to port B.



SPECIFICATIONS

Sensor Type	Differential
Pressure Port Orientation	Same Directional Pressure Ports
Supply Voltage Vs (DC)	4.5 to 5.5 V
Lead Temperature	250 °C
Quiescent Current	7.5 mA
Compensated Temperature Range	0 to 70 °C
Operating Temperature Range	-25 to 105 °C
Storage Temperature Range	-55 to 125 °C
Humidity Limits	0 to 95 %RH
Operating Pressure	0 - 5 psid

Proof Pressure	15 psi
Burst Pressure	30 psi
Minimum Output Span Voltage	4.43 V
Nominal Output Span Voltage	4.50 V
Maximum Output Span Voltage	4.57 V
Output Span Voltage Range	4.43 to 4.57 V
Nominal Span Shift	$\pm 0.2\%$
Maximum Span Shift	$\pm 1.5\%$
Span Shift Range	$\pm 0.2\%$ to $\pm 1.5\%$
Minimum Offset Voltage at Zero Pressure	0.18 V
Nominal Offset Voltage at Zero Pressure	0.25 V
Maximum Offset Voltage at Zero Pressure	0.32 V
Offset Voltage Range at Zero Pressure	0.18 to 0.32 V
Nominal Offset Shift	$\pm 0.5\%$
Maximum Offset Shift	$\pm 1.5\%$
Offset Shift Range	$\pm 0.5\%$ to $\pm 1.5\%$
Nominal Linearity (Hysteresis Error)	$\pm 0.1\%$
Maximum Linearity (Hysteresis Error)	$\pm 0.5\%$
Linearity Range (Hysteresis Error)	$\pm 0.1\%$ to $\pm 0.5\%$
Nominal Repeatability	$\pm 0.2\%$
Maximum Repeatability	$\pm 0.5\%$
Repeatability Range	$\pm 0.2\%$ to $\pm 0.5\%$
Nominal Response Time	100 μ s
Package Series Description	A-Series
Operating Mode (Differential, Gauge, Absolute)	Differential