

ASCX SERIES COMPATIBLE PRESSURE SENSORS

COMPATIBLE TO SENSYM ASCX SERIES



Features

- 5 Vdc Supply
- High Level Voltage Output
- Ratiometric 4.5 V Span
- Temperature Compensated
- Calibrated Zero and Span
- MULTIPLE Pressure Ranges

Applications

- Medical Instrumentation
- Environmental Instrumentation
- HVAC Instrumentation
- Pneumatic Controls

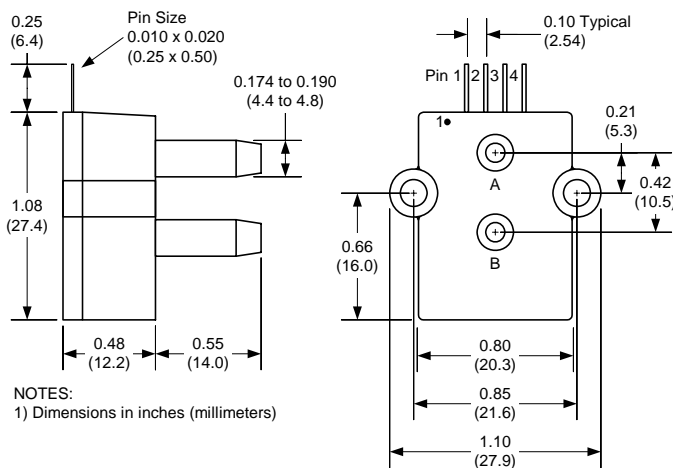
General Description

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.

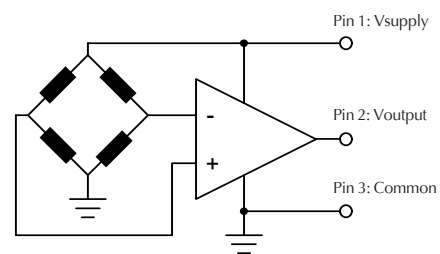
These calibrated and temperature compensated sensors give an accurate and stable output over a wide temperature range. Each sensor is internally compensated using an ASIC compensation technique. This series is intended for use with non-corrosive, non-ionic working fluids such as air, dry gases and the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

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

Physical Dimensions



Equivalent Circuit



Pin 1: Vsupply
Pin 2: Voutput
Pin 3: Common
Pin 4: Do not connect

All Sensors reserves the right to make changes to any products herein. All Sensors does not assume any liability arising out of the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.

Maximum Ratings		Environmental Specifications	
Supply Voltage, Vs	+4.5 to +5.5 Vdc	Compensated Temperature	0 to 70°C
Lead Soldering Temperature (2-4 sec.)	250 °C	Operating Temperature	-25 to 105°C
Quiescent Current ⁽⁶⁾	7.5 mA	Storage Temperature	-55 to 125°C
		Humidity Limits (non condensing)	0 to 95% RH

Part Number	Operating Pressure	Proof Pressure	Burst Pressure
1 PSI-D-4V-ASCX	0 - 1 PSID	5 PSI	10 PSI
5 PSI-D-4V-ASCX	0 - 5 PSID	15 PSI	30 PSI
15 PSI-D-4V-ASCX	0 - 15 PSID	45 PSI	75 PSI
15 PSI-A-4V-ASCX	0 - 15 PSIA	45 PSI	75 PSI
30 PSI-D-4V-ASCX	0 - 30 PSID	100 PSI	150 PSI
30 PSI-A-4V-ASCX	0 - 30 PSIA	100 PSI	150 PSI
100 PSI-D-4V-ASCX	0 - 100 PSID	150 PSI	150 PSI
100 PSI-A-4V-ASCX	0 - 100 PSIA	150 PSI	150 PSI

Performance Characteristics for 1/5 PSI-D-4V-ASCX

Parameter ⁽¹⁾	Minimum	Nominal	Maximum	Units
Output Span ⁽⁵⁾	4.43	4.50	4.57	Volt
Span Shift (0 °C to 70 °C)	-	±0.2	±1.5	%Span
Offset Voltage @ zero pressure	0.18	0.25	0.32	Volt
Offset Shift (0 °C to 70 °C) ⁽²⁾	-	±0.5	±1.5	%Span
Combined Linearity and Hysteresis Error ⁽⁴⁾	-	±0.1	±0.5	%Span
Repeatability ⁽⁷⁾	-	±0.2	±0.5	% Span
Response Time ⁽⁸⁾	-	100	-	uSec

Performance Characteristics for 15/30/100 PSI-x-4V-ASCX

Parameter ⁽¹⁾	Minimum	Nominal	Maximum	Units
Output Span ⁽⁵⁾	4.45	4.50	4.55	Volt
Span Shift (0 °C to 70 °C)	-	±0.2	±1.0	%Span
Offset Voltage @ zero pressure	0.20	0.25	0.30	Volt
Offset Shift (0 °C to 70 °C) ⁽²⁾	-	±0.5	±1.0	%Span
Combined Linearity and Hysteresis Error ⁽⁴⁾	-	±0.1	±0.5	%Span
Repeatability ⁽⁷⁾	-	±0.2	±0.5	% Span
Response Time ⁽⁸⁾	-	100	-	uSec

Specification Notes

- 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. ABSOLUTE DEVICES ARE WITH PRESSURE APPLIED TO PORT A.
- SHIFT IS RELATIVE TO 25°C.
- MEASURED AT ONE-HALF FULL SCALE RATED PRESSURE USING BEST STRAIGHT LINE CURVE FIT FOR THE SPAN INDICATED.
- THE VOLTAGE ADDED TO THE OFFSET VOLTAGE AT FULL SCALE PRESSURE. NOMINALLY THE OUTPUT VOLTAGE RANGE IS 0.25 TO 4.75 VOLTS FOR MINUS TO PLUS FULL SCALE PRESSURE.
- PARAMETER IS COMPUTED AS MAXIMUM FOR DESIGN REFERENCE AND IS NOT TESTED.
- MAXIMUM DIFFERENCE IN OUTPUT AT ANY PRESSURE WITHIN THE OPERATING PRESSURE RANGE AND COMPENSATED TEMPERATURE RANGE AFTER: A) 1000 TEMPERATURE CYCLES AND B) 1.0 MILLION PRESSURE CYCLES.
- RESPONSE TIME FOR A ZERO TO FULL SCALE PRESSURE STEP CHANGE, 10% TO 90% RISE TIME.

ASCX SERIES COMPATIBLE REV A

DS-0023 Rev A

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9