

www.allisensors.com®
Signed Original On File

 www.allsensors.com
Signed Original On File



WIFS.COM®
d Original On File

- ## Applications

- ## General Description

These calibrated and temperature compensated sensors give an accurate and stable output over a wide temperature range. 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 and operation from any D.C. supply voltage between 4.5 and 5.5

Physical Dimensions

Equivalent Circuit



- NOTES
- 1) Dimensions are in inches [mm].
- 2) For suggested pad layout, see drawing: PAD-01

Pin 1: Vs
Pin 2: Gnd
Pin 3: Vout
Pin 4: Do Not Connect

Approvals

MKT	DATE	MFG	DATE	ENG	DATE	QA	DATE
☐ As Is ☐ With Change		☐ As Is ☐ With Change		☐ As Is ☐ With Change		☐ As Is ☐ With Change	

All Sensors

DS-0101 Rev B

www.allensors.com **all sensors**

f 408 225 2079

408 225 4314

16035 Vineyard Blvd. Morgan Hill, CA 95037

Pressure Sensor Characteristics Maximum Ratings

Supply Voltage, Vs	+4.5 to +5.5 Vdc
Common-mode pressure	10 psig
Lead Temperature (soldering 2-4 sec.)	250°C

Environmental Specifications

Temperature Ranges	
Compensated	5 to 50° C
Operating	-25 to 85° C
Storage	-40 to 125° C
Humidity Limits	0 to 95% RH (non condensing)

Standard Pressure Ranges

Part Number	Operating Pressure	Nominal Span	Proof Pressure	Burst Pressure
0.5 INCH-Dx-4V-MINI	± 0.5 inH2O	4 V	100 inH2O	200 inH2O
1 INCH-Dx-4V-MINI	±1 inH2O	4 V	100 inH2O	200 inH2O
1 INCH-G-4V-MINI	0 - 1 inH2O	4 V	100 inH2O	200 inH2O
5 INCH-Dx-4V-MINI	± 5 inH2O	4 V	200 inH2O	300 inH2O
5 INCH-G-4V-MINI	0 - 5 inH2O	4 V	200 inH2O	300 inH2O
10 INCH-Dx-4V-MINI	±10 inH2O	4 V	200 inH2O	300 inH2O
10 INCH-G-4V-MINI	0 - 10 inH2O	4 V	200 inH2O	300 inH2O
20 INCH-Dx-4V-MINI	±20 inH2O	4 V	300 inH2O	500 inH2O
20 INCH-G-4V-MINI	0 - 20 inH2O	4 V	300 inH2O	500 inH2O
30 INCH-Dx-4V-MINI	±30 inH2O	4 V	500 inH2O	800 inH2O
30 INCH-G-4V-MINI	0 - 30 inH2O	4 V	500 inH2O	800 inH2O

For differential pressure D1 is the package with two pressure ports the same side, D2 has two ports the opposite sides.

Performance Characteristics for 0.5 INCH-Dx-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±0.5	-	inH2O
Output Span, note 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±120	mV
Offset Warm-up Shift, note 3	-	±10	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±10	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±2	%FSS

Performance Characteristics for 1 INCH-Dx-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±1.0	-	inH2O
Output Span, note 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±60	mV
Offset Warm-up Shift, note 3	-	±10	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±10	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±2	%FSS

Performance Characteristics for 1 INCH-G-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, gage pressure	-	1.0	-	inH2O
Output Span, note 5	3.90	4.0	4.10	V
Offset Voltage @ zero pressure	0.15	0.25	0.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±60	mV
Offset Warm-up Shift, note 3	-	±10	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±10	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±2	%FSS

Performance Characteristics for 5 INCH-Dx-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±5.0	-	inH2O
Output Span, note 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±40	mV
Offset Warm-up Shift, note 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±1	%FSS

Performance Characteristics for: 5 INCH-G-4V-MINI

Parameter, NOTE 1	Minimum	Nominal	Maximum	Units
Operating Range, gage pressure	-	5.0	-	inH2O
Output Span, NOTE 5	3.90	4.0	4.10	V
Offset Voltage @ zero pressure	0.15	0.25	0.35	V
Offset Temperature Shift (5°C-50°C), NOTE 2	-	-	±40	mV
Offset Warm-up Shift, NOTE 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, NOTE 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), NOTE 2	-	-	±1	%FSS

Performance Characteristics for: 10 INCH-Dx-4V-MINI

Parameter, NOTE 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±10.0	-	inH2O
Output Span, NOTE 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), NOTE 2	-	-	±20	mV
Offset Warm-up Shift, NOTE 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, NOTE 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), NOTE 2	-	-	±1	%FSS

Performance Characteristics for: 10 INCH-G-4V-MINI

Parameter, NOTE 1	Minimum	Nominal	Maximum	Units
Operating Range, gage pressure	-	10.0	-	inH2O
Output Span, NOTE 5	3.90	4.0	4.10	V
Offset Voltage @ zero pressure	0.15	0.25	0.35	V
Offset Temperature Shift (5°C-50°C), NOTE 2	-	-	±20	mV
Offset Warm-up Shift, NOTE 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, NOTE 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), NOTE 2	-	-	±1	%FSS

Performance Characteristics for 20 INCH-Dx-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±20.0	-	inH2O
Output Span, note 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±20	mV
Offset Warm-up Shift, note 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±1	%FSS

Performance Characteristics for 20 INCH-G-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, gage pressure	-	20.0	-	inH2O
Output Span, note 5	3.90	4.0	4.1	V
Offset Voltage @ zero pressure	0.15	0.25	0.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±20	mV
Offset Warm-up Shift, note 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±1	%FSS

Performance Characteristics for 30 INCH-Dx-4V-MINI

Parameter, note 1	Minimum	Nominal	Maximum	Units
Operating Range, differential pressure	-	±30.0	-	inH2O
Output Span, note 5	±1.90	±2.0	±2.10	V
Offset Voltage @ zero differential pressure	2.15	2.25	2.35	V
Offset Temperature Shift (5°C-50°C), note 2	-	-	±20	mV
Offset Warm-up Shift, note 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, note 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), note 2	-	-	±1	%FSS

Performance Characteristics for 30 INCH-G-4V-MINI

Parameter, NOTE 1	Minimum	Nominal	Maximum	Units
Operating Range, gage pressure	-	30.0	-	inH2O
Output Span, NOTE 5	3.9	4.0	4.1	V
Offset Voltage @ zero pressure	0.15	0.25	0.35	V
Offset Temperature Shift (5°C-50°C), NOTE 2	-	-	±20	mV
Offset Warm-up Shift, NOTE 3	-	±5	-	mV
Offset Position Sensitivity (±1g)	-	±5	-	mV
Offset Long Term Drift (one year)	-	±5	-	mV
Linearity, hysteresis error, NOTE 4	-	0.05	0.25	%FSS
Span Shift (5°C-50°C), NOTE 2	-	-	±1	%FSS

Pressure Response: for any pressure applied the response time to get to 90% of pressure applied is typically less than 500 useconds.

Specification Notes

NOTE 1: 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 THE **B-PORT**.

NOTE 2: SHIFT IS RELATIVE TO 25°C.

NOTE 3: SHIFT IS WITHIN THE FIRST HOUR OF EXCITATION APPLIED TO THE DEVICE.

NOTE 4: MEASURED AT ONE-HALF FULL SCALE RATED PRESSURE USING BEST STRAIGHT LINE CURVE FIT.

NOTE 5: THE VOLTAGE ADDED TO THE OFFSET VOLTAGE AT FULL SCALE PRESSURE. NOMINALLY THE OUTPUT VOLTAGE RANGE IS 0.25 TO 4.25 VOLTS FOR MINUS TO PLUS FULL SCALE PRESSURE.

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.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru