

- **SURFACE MOUNT AND DIP PRESSURE SENSORS LOW-COST PACKAGED DIE**

DESCRIPTION

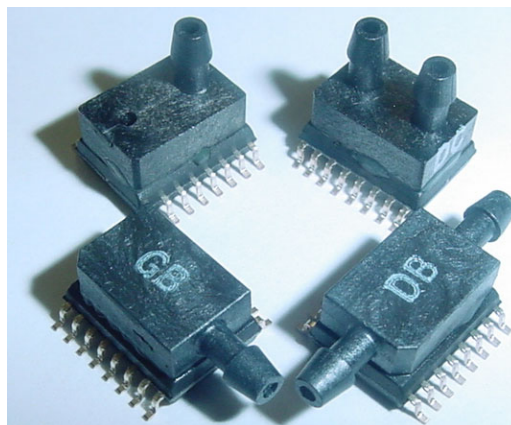
Silicon Microstructures provides its two most popular pressure sensor die in surface mount dual in-line package (SO-16) configuration. All parts in these series are uncompensated high-performance die mounted in an injection-molded package designed for surface mounting.

These packaged sensor die provide a way for OEM manufacturers to incorporate pressure sensors at costs close to raw die prices, without the need to handle, attach, or wire bond silicon sensor die.

Options include pressure range, absolute or gage configuration, and a choice of cap configurations. The result is a versatile product line suitable for a wide range of OEM applications.

The low-pressure series (model **SM5470**) incorporate Silicon Microstructures unique low-pressure die to achieve high performance in pressure ranges from 0.15 PSI full-scale to 3 PSI full-scale in gage and differential configuration.

The model **SM5430** comes in gauge, differential, and absolute versions for pressure ranges from 5 PSI to 100 PSI.



FEATURES

- Low pressure (from 0-0.15 to 0-100 PSI FS)
- Easy to Use
- Compact and Light-weight
- High-performance, Stable Silicon Chip and Package
- Easily Embedded in OEM Equipment
- High-volume, Low Cost

APPLICATIONS

- Altimeters
- Barometric Correction
- Tire Gauges
- Digital Pressure Gauges
- Environmental Monitoring
- Appliances
- Consumer and Sports
- HVAC
- Medical Instrumentation and Monitoring
- Pressure Differential and Flow Monitoring
- Hand-held Gauges

**Now Available in
Tape and Reel**

SM5430/SM5470

CHARACTERISTICS FOR SM5430/SM5470 - SPECIFICATIONS

All parameters measure at 5V excitation at room temperature, unless otherwise specified.

All Models

Parameter	Min.	Typ.	Max.	Units	Notes
Excitation Voltage	0	5.0	10.0	V	
Excitation Current	0	1.5	3.0	mA	
Offset	SM5470 SM5430	-75 -30 0	+25 +50	mV mV	
TC Span	-15	-19	-24	%FS/100°C	1
TC Resistance	33	28	25	%/100°C	1
Bridge Impedance	2.7	3.3	4.0	kΩ	
Operating Temp	-40		85	°C	
Storage Temp	-55		125	°C	

SM5430 Standard Pressure Series

Span (FS Range), PSI (kPa)	Min.	Typ.	Max.	Units	Notes
5 (34)	75	100	125	mV	3
15 (103)	105	145	175	mV	3
30 (207)	115	165	195	mV	3
60 (414)	115	180	220	mV	3
100 (689)	115	200	250	mV	3
Linearity	-0.2	± 0.07	+0.2	%FS	4
TC Offset	-5	-1	+5	%FS/100°C	1
Burst Pressure	>5X			Rated FS Pressure	2

SM5470 Low Pressure Series Only

Span (FS Range), PSI (kPa)	Min.	Typ.	Max.	Units	Notes
0.15 (1.03)	25	50	85	mV	3
0.30 (2.07)	25	50	85	mV	3
0.80 (5.52)	25	50	85	mV	3
1.50 (10.3)	25	50	85	mV	3
3.00 (20.7)	25	50	85	mV	3
Linearity	-0.3	± 0.1	+0.3	%FS	4
TC Offset		± 12		%FS/100°C	1
Burst Pressure	15X			Rated FS Pressure	2

Notes:

1. Measured from 0 to 70°C
2. Sensor die will survive pressure specified for all ranges. Maximum package pressure is 150 PSI.
3. Measured at 5V, constant voltage excitation
4. Defined as best-fit straight line (BFSL); for 0.3 PSI full-scale, linearity is ± 0.5%FS. For 0.15 PSI full-scale, linearity is ± 2.5%FS.

ORDERING INFORMATION

Model Number Pressure Type

SM5470 - 008 - G - B

Pressure Cap Type
Range

Pressure Type

A: Absolute (except 5470)
G: Gauge
D: Differential

Available Cap Type

B: Horizontal Barbed port(s)
C: Vertical Barbed port(s)

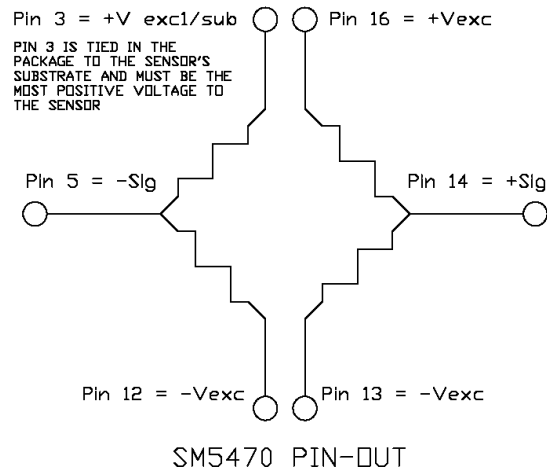
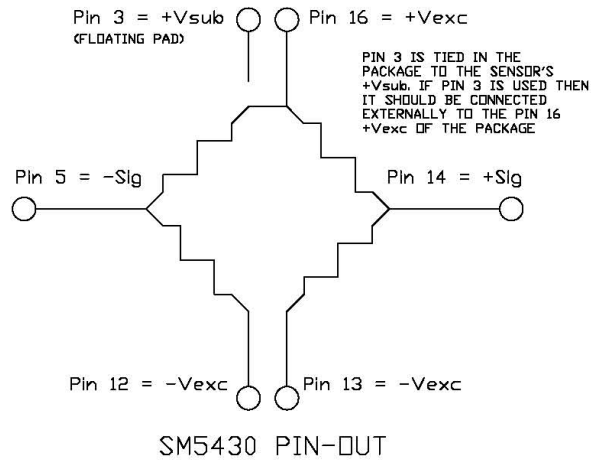
Std. Pressure Ranges

PSI	5430
5	005
15	015
30	030
60	060
100	100

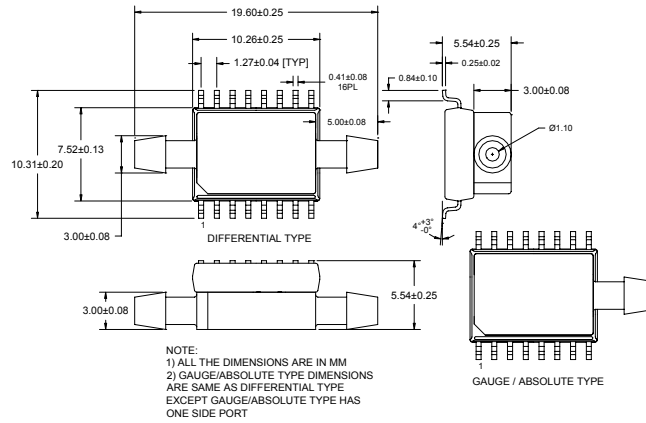
Low Pressure Ranges

PSI	5470
0.15	001
0.30	003
0.80	008
1.50	015
3.00	030

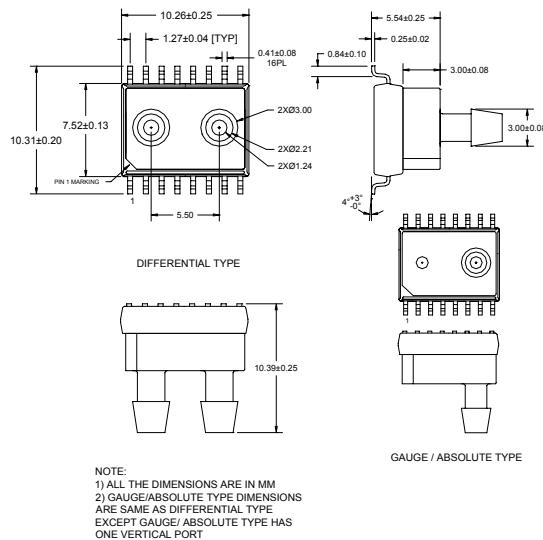
Pin Out -- SM5430/SM5470



B- Horizontal Barb Configuration



C- Vertical Barb Configuration



Dimensions (in millimeters) -- SM5430/SM5470

Notice:

Notice: Silicon Microstructures, Inc. reserves the right to make changes to the product contained in this publication. Silicon Microstructures, Inc. assumes no responsibility for the use of any circuits described herein, conveys no license under any patent or other right, and makes no representation that the circuits are free of patent infringement. While the information in this publication has been checked, no responsibility, however, is assumed for inaccuracies.

Silicon Microstructures, Inc. does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of a life-support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications.

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