

Sales Resource – Product Overview

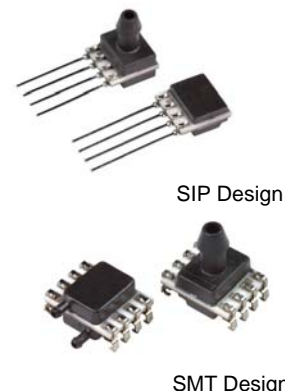
HSC Series, SSC Series Plastic Silicon Pressure Sensors

Description

HSC Series, SSC Series Plastic Silicon Pressure Sensor

The new the HSC Series and SSC Series are plastic silicon pressure sensors that offer customers three key benefits not found in competitive plastic silicon sensors:

1. **Stability:** The most stable plastic silicon pressure sensors available
2. **Accuracy:** Designed to provide an extremely tight accuracy specification
3. **Flexibility:** Modular and flexible design offer customers a variety of package styles and options, all with the same industry-leading performance specifications



The HSC and SSC Series' SMT mounting capability, small form factor and stability fill a previous gap in the Honeywell portfolio. Two new lines offer different accuracies and compensated temperature ranges that address specific segment needs.

HSC (High Accuracy Silicon Ceramic) Series: Industry-leading $\pm 1\%$ high accuracy specification, compensated across a $0\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$ [$32\text{ }^{\circ}\text{F}$ to $122\text{ }^{\circ}\text{F}$] temperature range.

SSC (Standard Silicon Ceramic) Series: $\pm 2\%$ standard accuracy specification compensated across a wider $-20\text{ }^{\circ}\text{C}$ to $85\text{ }^{\circ}\text{C}$ [$-4\text{ }^{\circ}\text{F}$ to $185\text{ }^{\circ}\text{F}$] temperature range.

These sensors are intended for use with non-corrosive, non-ionic working fluids such as air and dry gases. They are designed to provide digital correction of sensor offset, sensitivity, temperature coefficients and non-linearity. Industry-leading stability helps prevent drift over time or from temperature extremes.

Value Propositions

- **Stability:** Industry-leading stability that often eliminates the need for calibration after board mount, and periodically over time
- **Accuracy:** Calibrated to optimize accuracy
- **Application flexibility:** Multiple packaging, mounting, power and signal options combine with customized calibration capabilities to increase application flexibility
- **Small size:** Occupies less area on the PCB, typically allowing for easier placement on crowded boards, or in small devices
- **Repeatability:** Provides excellent repeatability, high accuracy and reliability under many demanding conditions
- **Efficient:** Allows pressure monitoring within the specified range so that the appropriate adjustments can be made
- **Sensitive:** Meets specified pressure level requirements, providing enhanced sensitivity and accuracy over the range

Features

Feature	HSC	SSC
Output options	Ratiometric analog output or Digital I ² C or SPI compatible digital output	
Total error band	$\pm 1.0\%$ of full scale span maximum	$\pm 2.0\%$ of full scale span maximum
Compensated temp range	precision ASIC conditioning/temperature compensated	
	$0\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$ [$32\text{ }^{\circ}\text{F}$ to $122\text{ }^{\circ}\text{F}$]	$-20\text{ }^{\circ}\text{C}$ to $85\text{ }^{\circ}\text{C}$ [$-4\text{ }^{\circ}\text{F}$ to $185\text{ }^{\circ}\text{F}$]
Pressure types	absolute, differential, gage, compound	
Pressure ranges	1 psi to 150 psi [60 mbar to 10 bar]	
Standard calibration units	psi, mbar, bar, kPa	
Supply voltage	3.3 Vdc or 5.0 Vdc	
Mounting	Lead through SIP or SMT	

Benefits

- Digital ASIC output in either I²C or SPI protocols from digital sensors accelerate performance through reduced conversion requirements and the convenience of direct interface to microprocessors or microcontroller
- On-board signal conditioning typically allows for removal of signal conditioning components from the PCB
- Custom calibration ranges, combined with digital output options, provide support for many unique applications

Potential Applications

Industrial

- Barometry
- Flow calibrators
- Gas chromatography
- Gas flow instrumentation
- HVAC
- Life sciences
- Pneumatic controls

Medical

- Airflow monitors
- Anesthesia machines
- Blood analysis machines
- Gas chromatography
- Gas flow instrumentation
- Kidney dialysis machines
- Oxygen concentrators
- Pneumatic controls
- Respiratory machines
- Sleep apnea equipment
- Ventilators

Competitors

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Key competitors include Fujikura's XFPM and X3PM, SMI's 5822/5872, 5852 Series, All Sensors' 4v-mini, and Freescale's MPX5 sensors.

Contact Information

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WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

WARNING

MISUSE OF DOCUMENTATION

- The information presented is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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