



**The 7000 Series** is ideal for high-volume, medium-pressure applications.

**COMPANY:** Merit Sensor is a leader in piezoresistive pressure sensing and partners with clients to create high performing solutions for a variety of applications and industries.

**SENTIUM:** Merit Sensor products incorporate a proprietary Sentiium® technology, developed to provide a best-in-class operating temperature range (-40°C to 150°C) and superior stability.

**TECHNOLOGY:** Merit Sensor utilizes a piezoresistive Wheatstone bridge in a design that anodically bonds glass to a chemically etched silicon diaphragm. All products are RoHS compliant.

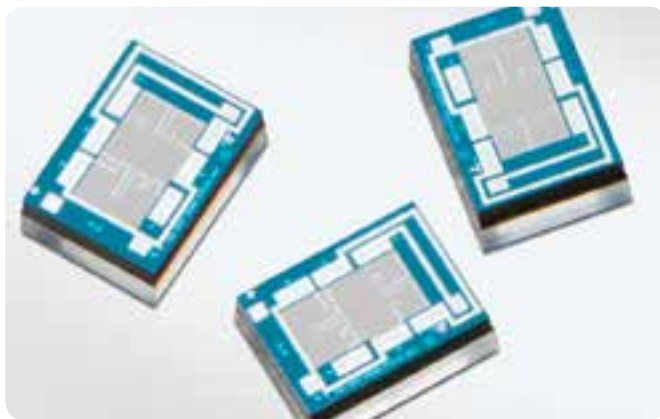
**CAPABILITIES:** Merit Sensor designs, engineers, fabricates, dices, assembles, and tests products from a state-of-the-art facility near Salt Lake City, Utah.

## FEATURES

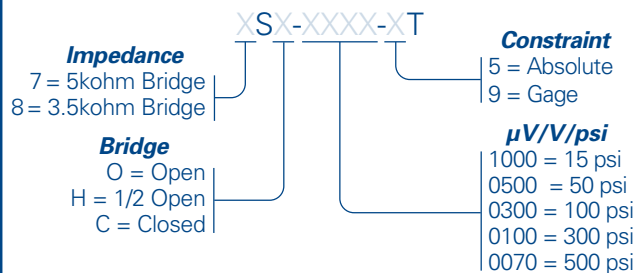
|             |                                                   |
|-------------|---------------------------------------------------|
| Range       | 15 to 500 psi (1 to 34.5 bar; 103 to 3,447 KPa)   |
| Type        | Absolute, gage, differential and vacuum           |
| Media       | Clean, dry air and non-corrosive gases            |
| Shipping    | Wafers on tape, waffle pack                       |
| Flexibility | Sensitivity, resistance, bridge, constraint, etc. |

## BENEFITS

|             |                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------|
| Performance | Enjoy best-in-class performance due to Merit's proprietary Sentiium technology.                           |
| Cost        | Save money over time with high-performing die                                                             |
| Security    | Feel confident doing business with an experienced company backed by a solid parent company (NASDAQ: MMSI) |
| Speed       | Get to market quickly with creative and flexible solutions.                                               |
| Service     | Experience prompt, personal, and professional support.                                                    |



## 7000 Series Part Number Configurator



**Example:** 7SO-0300-9T offers 5kohm Impedance, Open Bridge, 100psi and Gage Constraint

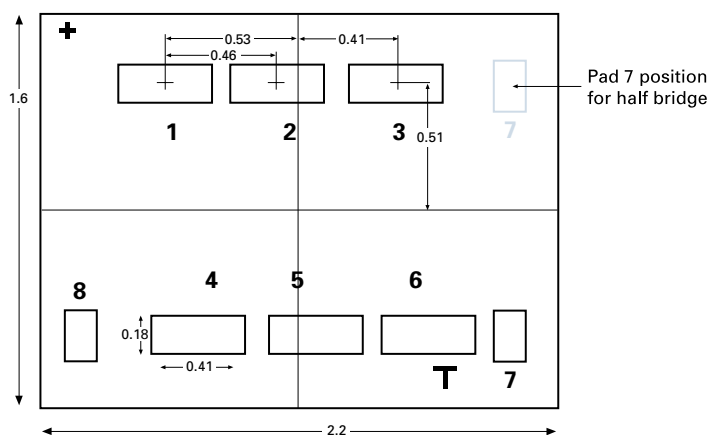
**Note:** "T" in part number = sawn wafer on tape in metal frame

## 7000 Series Standard Part Numbers

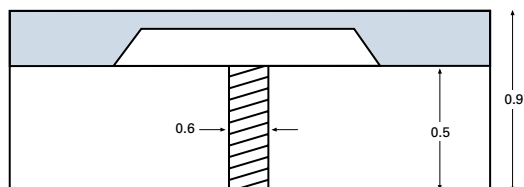
|             |             |             |
|-------------|-------------|-------------|
| 7SO-1000-5T | 7SC-1000-5T | 8SH-1000-5T |
| 7SO-0500-5T | 7SC-0500-5T | 8SH-0500-5T |
| 7SO-0300-5T | 7SC-0300-5T | 8SH-0300-5T |
| 7SO-0100-5T | 7SC-0100-5T | 8SH-0100-5T |
| 7SO-0070-5T | 7SC-0070-5T | 8SH-0070-5T |
| 7SO-1000-9T | 7SC-1000-9T | 8SH-1000-9T |
| 7SO-0500-9T | 7SC-0500-9T | 8SH-0500-9T |
| 7SO-0300-9T | 7SC-0300-9T | 8SH-0300-9T |
| 7SO-0100-9T | 7SC-0100-9T | 8SH-0100-9T |
| 7SO-0070-9T | 7SC-0070-9T | 8SH-0070-9T |
| 7SH-1000-5T | 8SO-1000-5T | 8SC-1000-5T |
| 7SH-0500-5T | 8SO-0500-5T | 8SC-0500-5T |
| 7SH-0300-5T | 8SO-0300-5T | 8SC-0300-5T |
| 7SH-0100-5T | 8SO-0100-5T | 8SC-0100-5T |
| 7SH-0070-5T | 8SO-0070-5T | 8SC-0070-5T |
| 7SH-1000-9T | 8SO-1000-9T | 8SC-1000-9T |
| 7SH-0500-9T | 8SO-0500-9T | 8SC-0500-9T |
| 7SH-0300-9T | 8SO-0300-9T | 8SC-0300-9T |
| 7SH-0100-9T | 8SO-0100-9T | 8SC-0100-9T |
| 7SH-0070-9T | 8SO-0070-9T | 8SC-0070-9T |

**SPECIFICATIONS**

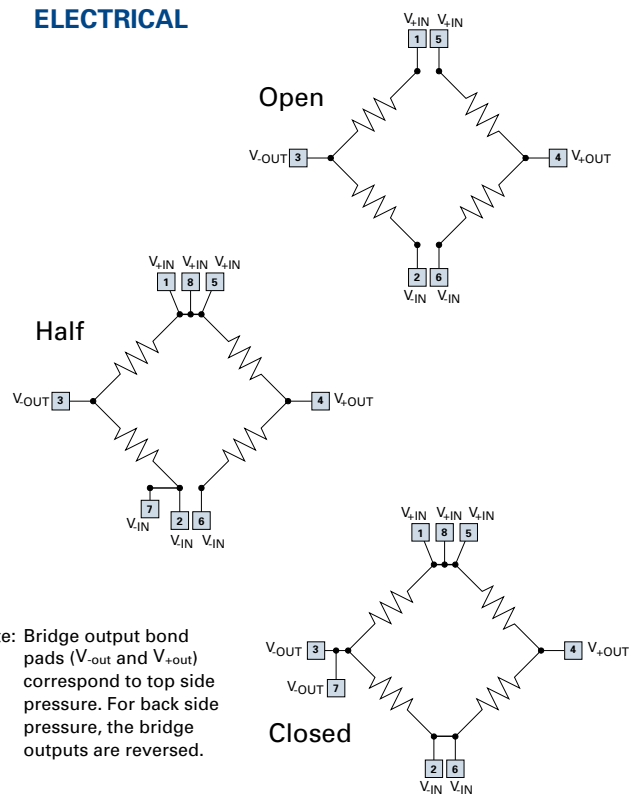
| Parameter                                       | Minimum | Typical | Maximum | Units                          | Notes                                |
|-------------------------------------------------|---------|---------|---------|--------------------------------|--------------------------------------|
| <b>Electrical &amp; Environmental</b>           |         |         |         |                                |                                      |
| Excitation (In)                                 |         | 5       | 15      | V                              | Maximum: 3 mA                        |
| Impedance                                       | 4000    | 5000    | 6000    | $\Omega$                       | Optional: 3,500 +/- 500              |
| Operating Temperature                           | -40     |         | 150     | °C                             | Sentium® technology                  |
| Storage Temperature                             | -55     |         | 160     | °C                             |                                      |
| <b>Performance</b>                              |         |         |         |                                |                                      |
| Offset                                          | -10     | 0       | 10      | mV/V                           | Zero pressure; gage only; @25°C      |
| Non-linearity                                   | -0.2    | 0       | 0.2     | % FSO                          | Best Fit Straight Line; @25°C        |
| Pressure Hysteresis                             | -0.1    | 0       | 0.1     | % FSO                          | @25°C                                |
| Temp Coeff – Zero                               | -25     | 0       | 25      | $\mu\text{V/V}/^\circ\text{C}$ | -40°C to 150°C                       |
| Temp Coeff – Resistance                         | 2300    | 2800    | 3300    | PPM/°C                         | -40°C to 150°C                       |
| Temp Coeff – Sensitivity                        | -1500   | -2200   | -2500   | PPM/°C                         | -40°C to 150°C                       |
| Thermal Hysteresis                              | -0.1    | 0       | 0.1     | % FSO                          | Zero pressure                        |
| Long-Term Stability                             | -0.1    | 0       | 0.1     | % FSO                          |                                      |
| Burst Pressure                                  | 3X      |         |         |                                | Full scale pressure                  |
| <b>Full-Scale Output (@ 5 volts excitation)</b> |         |         |         |                                |                                      |
| 15 psi (1 bar; 103 KPa)                         | 60      | 75      | 90      | mV                             | Other outputs available upon request |
| 50 psi (3.4 bar; 345 KPa)                       | 100     | 125     | 150     | mV                             |                                      |
| 100 psi (6.9 bar; 689 KPa)                      | 120     | 150     | 180     | mV                             |                                      |
| 300 psi (20.7 bar; 2,068 KPa)                   | 120     | 150     | 180     | mV                             |                                      |
| 500 psi (34.5 bar; 3,447 KPa)                   | 140     | 175     | 210     | mV                             |                                      |

**DIMENSIONS (millimeters, post-cut)**


Standard Bond Pad Metallization = Aluminum



Absolute also; other constraints available

**ELECTRICAL**


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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

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