**Product Overview**

**Differential Pressure Sensors (DPS) for Smart Valve Applications**

- **101B(a19D) DPS**
  - piezoresistive effect
  - 316L SS diaphragm
  - temperature compensated
  - O-ring sealing (metallic)

  - diff. pressure ranges: 0~1 bar, ... ~35 bar
  - static pressure: 10 x full scale (max. 100 bar)
  - full scale output: ≥ 20 mV @ 5 Vdc
  - accuracy: 0.5 %fs, 1 %fs
  - other specifications: refer to 101B(a19D)
  - electrical interface: 4-color flying PVC wires

- **115C DPS**
  - metal capacitive technology
  - low differential pressure ranges
  - fully welded, 316L SS diaphragm

  - diff. pressure ranges: 0~15 mbar, ... ~69 bar
  - static pressure: 150 bar, 312 bar
  - zero offset: 120±40 pF
  - output: 90±20 pF
  - accuracy: 0.25 %fs, 0.5 %fs
  - operating temp.: -40 ~ +130 °C

**Differential Pressure Transducers for Differential Pressure Transmitter Applications**

- **157M DPTd**
  - piezoresistive effect
  - 316L SS diaphragm
  - temperature compensated
  - O-ring sealing (metallic)

  - diff. pressure ranges: 0~0.2 bar, ... ~35 bar
  - static pressure: 40 bar, 100 bar
  - full scale output: 50 mV @ 5 Vdc
  - accuracy: 0.25 %fs, 0.5 %fs
  - excitation: 5 Vdc or 1 mA
  - temp. compensation range: -30 ~ +80 °C
  - other specifications: refer to SE106 Sensor Die

- **315M DPTd**
  - metal capacitive technology
  - low differential pressure ranges
  - fully welded, 316L SS diaphragm

  - diff. pressure ranges: 0~0.1 bar, ... ~35 bar
  - static pressure: 40 bar, 100 bar
  - full scale output: 50 mV @ 5 Vdc
  - accuracy: 0.25 %fs, 0.5 %fs
  - excitation: 5 Vdc or 1 mA
  - temp. compensation range: -30 ~ +80 °C
  - other specifications: refer to SE106 Sensor Die

**Assembly of Transducers with Flanges**

On request the 157M, 315M, and 160M transducers can be supplied with flanges.

**Product Specifications**

The listed specifications are subject to change without prior notice.

**Your Local Distributor:**

BCM SENSOR TECHNOLOGIES bvba

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BCM SENSOR TECHNOLOGIES bvba
Pressure Sensor Dries (PSD) and Pressure Sensors (PS)

Made from high quality monocrystalline silicon wafer, the SE100-series are piezoresistive pressure sensor dies (PSD) manufactured by MEMS technology. The SE101, SE102, SE103 and SE105 PSD are designed for single-working pressure (either absolute- or gauge-pressure) applications, while the SE106 is designed for differential pressure application with both static-pressure and temperature measuring functions.

BCM pressure sensors (PS) are classified into a number of series according to the technology the PS is made by:

- 100B-series PS: oil-filled technology integrated with PSD;
- 300B-series PS: thick-film technology on ceramic or stainless steel (SS) sensor body;
- 50G-series PS: glass-bonding technology using semiconductor strain gauges;
- 60F-series PS: strain gauge technology bonding metal foil strain gauges.

Besides the PS as mentioned above, we offer piezoresistive differential pressure transducers (218D-series) and the differential pressure transducers integrated with both static-pressure and medium-temperature measuring functions (160-series).

In BCM capacitive differential pressure product line, 115C-series are differential pressure sensors (DPS) which are oil-filled and are made of differential capacitor structure, while both 315M-series and 157M-series are differential pressure transducers (DPTs). In this product category, the DPTs (315M-series) is integrated with a DPS (115C-series) which is based on metal capacitive technology, while the DPTs (157M-series) is developed on silicon capacitive technology.

All the PS, DPS and DPT as mentioned above are 100% tested and calibrated by BCM SENSOR, and are delivered with an individual calibration certificate. These products are available in mass production.

### Oil-filled Pressure Sensors (PS) Integrated with PSD

Piezoresistive effect, higher sensitivity

- excitation: voltage (5 Vdc) or current (1 mA)
- compensated temperature range: 0 ~ 70 °C
- operating temperature range: -40 ~ +125 °C
- full scale output: 100 mV

#### 101B(a10G) PS for General Purpose

- pressure: gauge, absolute, sealed gauge
- full scale output: 50 mV
- accuracy: 0.25 %, 0.5 %, 1 %
- input/output resistance: 5 kΩ

#### 101B(a10L) PS for Low Pressure Applications

- pressure: gauge, absolute, sealed gauge
- full scale output: 50 mV
- accuracy: 0.25 %, 0.5 %, 1 %
- input/output resistance: 5 kΩ

#### 101B(a12H) PS for High Pressure Applications

- pressure: gauge, absolute, sealed gauge
- full scale output: 100 mV
- accuracy: 0.25 %, 0.5 %, 1 %
- input/output resistance: 5 kΩ

### Glass-bonding Pressure Sensors (PS) with Semiconductor Strain Gauges

High Pressure and High Overload Capability

- pressure: gauge
- proof pressure: 250 bar
- burst pressure: 1500 bar
- compensated temperature range: -20 ~ +85 °C
- operating temperature range: -40 ~ +125 °C

#### 50G Mono-Block Gauge Pressure PS of Inner-Cavity

- ranges: 0~0.2 bar, ..., 0~200 bar
- output sensitivity: 25 mV/V
- accuracy: 0.5 %
- electrical interface: various options as shown below.

#### 301 Mono-Block Ceramic PS

- ranges: 0~2 bar, ..., 0~200 bar
- output sensitivity: 25 mV/V
- accuracy: 0.5 %
- electrical interface: various options as shown below.

### 664fI Mono-Block Gauge Pressure PS of Inner-Cavity

- ranges and types: 0~16 bar, ..., 0~400 bar, gauge
- output sensitivity: 1.2 mV/V, 2 mV/V
- electrical interface: various options as shown below.

### Pressure Sensors (PS) Made with Metal Foil Strain Gauges

High Precision and Low Thermal Effect

- metallic resistive effect
- voltage excitation: 5~12 Vdc
- input/output resistance: 50 kΩ
- compensated temperature range: 0 ~ 70 °C
- operating temperature range: -20 ~ +85 °C

#### 664fL Mono-Block Gauge Pressure PS of Inner-Cavity

- ranges: 0~16 bar, ..., 0~400 bar, gauge
- output sensitivity: 1.2 mV/V, 2 mV/V
- accuracy: 0.5 % for (1.2 mV/V), 0.1 %, 0.25 %, 0.5 %
- process connection: G1/2", male
- thread for housing: M24x1, male
- electrical interface: 4-color PVC flying wires of 100 mm length

### Thick-film Pressure Sensors (PS) of Ceramic or SS Sensor Body

Cost effective

- piezoresistive effect
- voltage excitation: 5-12 Vdc
- input/output resistance: 50 kΩ
- compensated temperature range: 0 ~ 70 °C
- operating temperature range: -20 ~ +85 °C

#### 330B Mono-Block Stainless Steel PS

- ranges: 0~2 bar, ..., 0~200 bar
- output sensitivity: 25 mV/V
- accuracy: 0.5 %, 1 %
- electrical interface: various options as shown below.

For detailed product information, please visit our website: www.BCMSENSOR.com.