

## Model 7319C: Compensated Media-Isolated Differential Pressure Sensor

### Features:

- $\pm 1\%$  Total Accuracy
- Temperature Compensated
- Complete Mounting Options
- Rugged Stainless Steel Isolation Package

### Descriptions:

The Model 7319C is a media isolated, piezoresistive silicon pressure sensor designed for low differential pressure applications. The sensor is packaged in a SST316L housing, in which pressure is transferred from the stainless steel diaphragm to the sensor through silicone oil. Thick-film substrates are used for temperature compensation.



Model 7319C is field interchangeable with a calibrated full scale of  $100 \pm 3$  mV. The sensor can either be welded to a 1/4"-18 NPT male fitting or mounted with an O-ring<sup>1</sup>. Typical applications for Model 7319C include HVAC, Medical Instruments, Process Control Systems, Hydraulic Systems, Automotive, Refrigeration, Compressors and Aerospace.

### Electrical:

Excitation (mA)	1.0
Insulation Resistance	1000 Mohm @ 50 Vdc
Bridge Configuration	5 wire half-closed bridge configuration

### Sensor Operating Characteristics<sup>2</sup>:

Range (psid)	$\pm 5$	$\pm 15$	$\pm 30$	$\pm 100$	$\pm 300$
Full Scale (mV)	$50 \pm 3$	$100 \pm 3$	$100 \pm 3$	$100 \pm 3$	$100 \pm 3$
Zero Output (mV)	$\pm 2$	$\pm 2$	$\pm 2$	$\pm 2$	$\pm 2$
Total Accuracy <sup>3</sup> (%FS)	1	1	1	1	1
Differential Overpressure Range (psid)	15	45	90	300	900
Maximum Line Pressure (psi)	50	150	300	1000	1000

### Environmental Effects:

Compensated Temperature Range <sup>4</sup>	32° F to 158° F (0° C to 70° C)
Operating Temperature Range <sup>4</sup>	-40° F to 257° F (-40° C to 125° C)

### Mechanical:

Media Compatibility	All corrosive media compatible with 316 stainless steel
Material	SST316L for all wetted parts
Recommended O-Ring	AS-568A-016, 0.614" ID x 0.070" width

### Notes:

1. Contact factory for availability of other fittings.
2. Tested at 1 mA excitation and room temperature conditions.
3. Total accuracy is the RSS of non-linearity, non-repeatability, hysteresis, thermal zero shift and sensitivity shift.
4. Contact factory for special calibration.



**Advanced Custom Sensors, Inc.**

45 Parker · Suite A · Irvine · CA 92618

Tel: (949) 855-6688

Fax: (949) 855-6685

E-mail: [info@acsensor.com](mailto:info@acsensor.com)

URL: <http://www.acsensor.com>

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**7319C - XXXX - PX**

**Pressure Range**

0005 =  $\pm 5$  psid

0015 =  $\pm 15$  psid

0030 =  $\pm 30$  psid

0100 =  $\pm 100$  psid

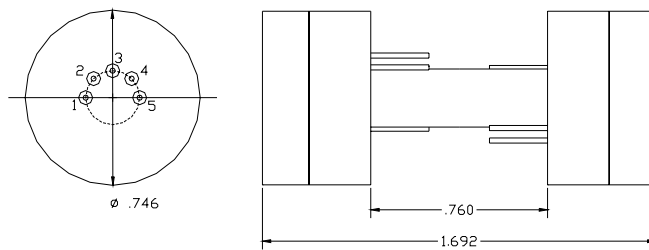
0300 =  $\pm 300$  psid

**Port**

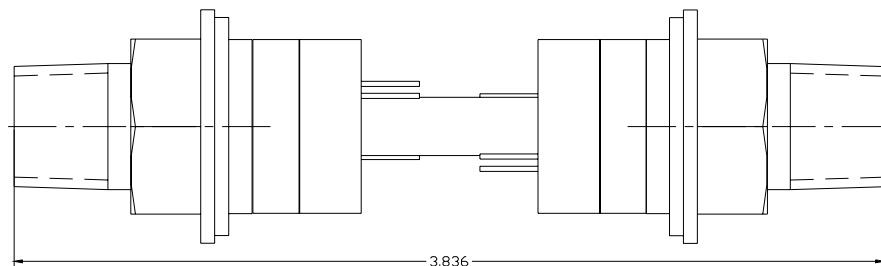
0 = No fitting (standard)

1 =  $\frac{1}{4}$ " NPT (standard)

Consult factory for availability of other fittings.



Model 7319C



Model 7319C with 1/4-NPT Option



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Tel: (949) 855-6688

Fax: (949) 855-6685

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URL: <http://www.acsensor.com>