



Sensonetix, Inc

SEN-300 Series Pressure Transducers



Our State-of-the-art Silicon-on-Sapphire pressure transducers have a proven track record in the aerospace, flight test, plastics and down-hole markets. Piezoresistive strain gages are epitaxially grown onto a single-crystal radiation-hardened structure with virtually undetectable hysteresis and non-repeatability. Sapphire is a perfect electrical insulator that does not require diode isolation junctions found on diffused semiconductor pressure transducers. Sapphire is chemically inert allowing compatibility with virtually all media.

Sensonetix' Series 300 pressure transducers offer a significant improvement in performance over bonded foil strain gage and diffused semiconductor technologies at competitive prices. These transducers are perfect for high volume OEM applications on hydraulic test stands, injection molding machines, paper machines, sterilizers, liquid level, gas pipelines and other applications where rugged high accuracy pressure measurements are required.

Available with a variety of pressure ports and electrical connectors, the 300 series transducers have custom packaging for high volume OEM applications. Fully compensated temperature ranges, above those available from foil strain gage technologies, up to 500°F can be ordered today.

If accuracy, stability and price are important to you, consider Sensonetix 300 Series Silicon-on-Sapphire Pressure Transducers for your pressure measurement needs.

300 SERIES SPECIFICATIONS

PRESSURE RANGES	15, 25, 30, 50, 100, 200, 500, 1000, 2000, 3000, 5000, 10000.
PROOF PRESSURE	150% FSO
BURST PRESSURE	300% FSO

ERROR BAND (See below)

LINEARITY	0.25% FSO
REPEATABILITY	0.1% FSO

TEMPERATURE RANGE/EFFECTS (See below)

COMPENSATED RANGE	80 to 500°F (higher range available)
OPERATING RANGE	80 to 500°F (for amplified version remote electronics required)
STORAGE RANGE	80 to 500°F (for amplified version remote electronics required)
THERMAL ZERO SHIFT	+/- 0.0175%FS/°F
THERMAL SPAN SHIFT	+/- 0.0175%FS/°F

ELECTRICAL PARAMETERS (See Below)

FULL SCALE OUTPUT	3-5 mV, 0-5 VDC, 0-10 VDC, 4-20mA
EXCITATION/POWER	6-12 VDC for mV output units 12-36VDC for amplified units
ZERO BALANCE	5.0% FSO (factory set)
INSULATION RESISTANCE	100 Meg Ohms @ 50 VDC

MECHANICAL PARAMETERS (See Below)

CASE MATERIAL	300 series welded SS, hermetically sealed
WETTED MATERIAL	300 series SS and sapphire
CONNECTOR	6 or 8 pin Bendix, CD Fitting, others available
CASE SIZE	1.30" diameter (maximum) 4.0" length (maximum)
PRESSURE FITTINGS	1/4"NPTM, 1/4"NPTF, MS33656-E4, 9/16" Snotrik

ORDERING INFORMATION

SEN-3XX-XXX-XX-XX-X-XX

MODEL:

- 301 = mV Output (Pressure Only)
- 302 = mV Output (Pressure & Temperature)
- 311 = 0-5 VDC Output (Pressure Only)
- 312 = 0-5 VDC Output (Pressure & Temperature)
- 321 = 4-20 mA Output (Pressure Only)
- 322 = 4-20 mA Output (Pressure & Temperature)
- 331 = 0-10 VDC Output (Pressure Only)
- 332 = 0-10 VDC Output (Pressure & Temperature)

PRESSURE RANGE:

See Above

PRESSURE TYPES

- A PSIA ABSOLUTE REFERENCED TO 0 PSI
- G PSIG REFERENCED TO ATMOSPHERIC PRESSURE
- V PSIV VACUUM REFERENCED TO ATMOSPHERIC PRESSURE
- WG PSIWG WET GAGE REFERENCE (CONDENSING ATMOSPHERES)
- S PSIS SEALED GAGE (REFERENCED TO 14.69 PSIA)

DASH FOR CONFIGURATIONS:

- 1 1" DIAMETER CASE WITH MALE FITTING
- 2 1" DIAMETER CASE WITH FEMALE FITTING
- 5 7/8" DIAMETER CASE WITH MALE FITTING
- 8 1.25" DIAMETER CASE WITH MALE FITTING
- 15 1.3" THICK-WALL WITHOUT ZERO AND SPAN POTS, ANY FITTING
- 16 1.3" THICK-WALL WITH ZERO AND SPAN POTS, ANY FITTING

FITTINGS

- F1 MS33656-E4 FITTING
- F2 1/4"NPTM
- F3 1/4"NPTF
- F4 1/8"NPTF
- F5 3/8"NPTF
- F6 1/4"-TUBE SWAGE-LOK (7/16"-20UNF)
- F7 9/16" SNOTRIK HIGH PRESSURE FITTING

COMPENSATED TEMPERATURE RANGES

- A 80 TO 500°F
- B -55 TO 300°F
- C -25 TO 250°F
- D -65 TO 250°F
- E ZERO TCR TEMP COMP COMPONENTS ONLY
- F 0 TO 180°F
- G 80 TO 180°F
- S SPECIAL CONFIGURATION

ELECTRICAL CONNECTIONS

- CD 1/2"NPTM CONDUIT FITTING
- C1 6-PIN (PTIH-10-6P) CONNECTOR
- C2 8-PIN (PCIH-12-8P) CONNECTOR
- C6 6-PIN (4-20mA)
- C8 8-PIN (4-20 mA)