



SEN-700 Series Extreme Temperature Pressure Transducers



Sensonetix State-of-the-Art Silicon-on-Sapphire pressure transducers have a proven track record in the aerospace, flight testing, plastic melt and downhole 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 a diffused semiconductor pressure transducer. Sapphire is chemically inert allowing compatibility with virtually all media.

A Sensonetix model SEN-700 pressure transducer offers an improvement in performance over bonded foil strain gage and diffused semiconductor technologies at competitive prices. This transducer is perfect for high volume OEM applications on hydraulic test stands, injection molding machines, paper machines, sterilizers, liquid level measurements, gas pipelines and any applications where precision pressure measurements are required.

Available with a variety of pressure ports and electrical connectors, the SEN-700 series transducer has custom packaging for high volume OEM applications. Fully compensated temperature ranges up to 650°F can be ordered today.

If accuracy, stability and price are important to you, consider a Sen-700 Series Silicon-on-Sapphire Pressure Transducer for your pressure measurement needs.

SEN-700 Extreme Temperature Pressure Transducers

PRODUCT SPECIFICATIONS

PRESSURE RANGES (PSI) 500 PSI; 1,000 PSI; 2,000 PSI; 3,000 PSI; 5,000 PSI; 10,000 PSI

PROOF PRESSURE 150% FSO

BURST PRESSURE 300% FSO

LINEARITY/REPEATABILITY/HYSTERESIS $\pm 0.30\%$ FS (BFSL)

TEMPERATURE RANGE PERFORMANCE

COMPENSATED RANGE 80°F to 650°F

OPERATING RANGE 80°F to 650° F

STORAGE RANGE 0°F to 150°F

EFFECT ON ZERO $\pm 0.02\%$ FS/° F

EFFECTS ON SPAN $\pm 0.02\%$ FS/° F

ELECTRICAL PARAMETERS

FULL SCALE OUTPUT 2-3 mV/V; 0-5 VDC; 0-10 VDC; 4-20 mA

EXCITATION/POWER 10 VDC typical for mV output units (other voltages available)

14-36 VDC for 0-5 VDC output

14-36 VDC for 0-10 VDC output

14-24 VDC for 4-20 mA output (12 VDC option available)

INSULATION RESISTANCE 100 Meg Ohms @ 50 VDC

MECHANICAL PARAMETERS

CASE MATERIAL 300 series welded SS

WETTED MATERIAL 300 series SS and sapphire

CONNECTOR 6 or 8 pin Bendix (others available)

PRESSURE FITTINGS 1/4"NPTM, 1/4"NPTF, MS33656-E4, 9/16" Snotrik

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PART NUMBER BREAKDOWN

7XX-XXX-X-XX-XXX-X

MODEL: _____
7 = HIGH TEMPERATURE

OUTPUT: _____
0 = 1-6 mV/V FOR TRANSDUCER (10 VDC TYP INPUT)
1 = 0-5 Volts FOR TRANSMITTER (14-36 VDC INPUT)
2 = 4-20 mA FOR TRANSMITTER (14-24 VDC INPUT)
3 = 0-10 Volts FOR TRANSMITTER (14-36 VDC INPUT)
(12 VDC INPUT AVAILABLE FOR 4-20 mA)

OUTPUT: _____
1 = PRESSURE ONLY
2 = PRESSURE AND TEMPERATURE
3 = TEMPERATURE ONLY

PRESSURE RANGE: _____
EXAMPLES – 3M = 3000 PSI; 5M = 5000 PSI; 10M = 10000 PSI
5C = 500 PSI; 1M = 1000 PSI

REFERENCE PRESSURE: _____
A = ABSOLUTE G = GAUGE S=SEALED

PRESSURE FITTING: _____
F1 = MS33656-E4
F2 = 1/4" NPTM
F3 = 1/4" NPTF
F4 = 1/8" NPTF
F5 = 3/8" NPTF
F6 = 1/4" TUBE SWAGELOK
F7 = 9/16" SNO-TRIK
F8 = 1/8" NPTM
F11 = 1/2" NPTM

ELECTRICAL CONNECTION: _____
CD = Conduit fitting
C1 = 6 Pin
C2 = 8 Pin

SPECIAL: _____
S = SPECIAL CONFIGURATION OR CUSTOMER REQUIREMENT
SUCH AS LOWER PRESSURE RANGES, HIGHER PRESSURE RANGES,
LONG TRANSMITTER CABLES, 12 VDC INPUT OR OTHER REQUESTS.