

SEN-700 Extreme Temperature Pressure Transducers



SEN-700 Series Extreme Temperature Pressure Transducers



Sensonetics 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 Sensonetics 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.

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PRODUCT SPECIFICATIONS

PRESSURE RANGES (PSI)	15, 25, 30, 50, 100, 200, 500, 1,000, 2,000, 3,000, 5,000, 10,000.
PROOF PRESSURE	150% FSO
BURST PRESSURE	300% FSO
LINEARITY/REPEATABILITY/HYSTERESIS	± 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	± 0.02% FS/° F
EFFECTS ON SPAN	± 0.02% FS/° F
ELECTRICAL PARAMETERS	
FULL SCALE OUTPUT	2-3 mV/V; 0-5 Volts; 0-10 Volts; 4-20mA
EXCITATION/POWER	10 VDC typical for mV output units (other voltages available) 14-36 VDC for 0-5 VDC output (12 VDC option available) 14-36 VDC for 0-10 VDC output (12 VDC option available) 14-24 VDC for 4-20 mA output
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 BATTERY INPUT AVAILABLE)

OUTPUT: _____

1 = PRESSURE ONLY

2 = PRESSURE AND TEMPERATURE

3 = TEMPERATURE ONLY

PRESSURE RANGE: _____

EXAMPLES – 3M = 3000 PSI; 5M = 5000 PSI; 10M = 10000 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