HIGH-TEMPERATURE PRESSURE TRANSDUCER

Model 7780
High-Temperature Pressure Transducer

MODEL 7780

FEATURES:

- Process temperature rated to +350 °F (+177 °C)
- Onboard remote electronics via stainless steel armored flex cable
- Standard accuracy to +0.3% RSS (Optional +0.1%)
- Lightweight all stainless steel design weighs just 8 oz (0.2 kg)
- Hydrogen and LOX compatibility
- Designed to meet MIL-STD-810 vibration and shock requirements

APPLICATIONS:

- Fuel and propulsion systems
- Military and defense
- High-temperature process media
- Aircraft engine test stands
- R&D laboratory research

PRODUCT OVERVIEW:

The Model 7780 Series from GP:50 is a family of high-temperature pressure transducers, offering consistent measurement accuracy in temperatures up to +350 °F (+177 °C). The Series features a lightweight, all stainless steel construction with choice of either 4-20 mA, 0 to 5 Vdc, or 0 to 10 Vdc output; or optional digital protocols. On-board isolated transducer electronics are remotely mounted via stainless steel armor jacketed flex tubing. The high-reliability of the Model 7780 Series is field-proven over 25 years and hundreds of applications, including higher shock and vibration environments.

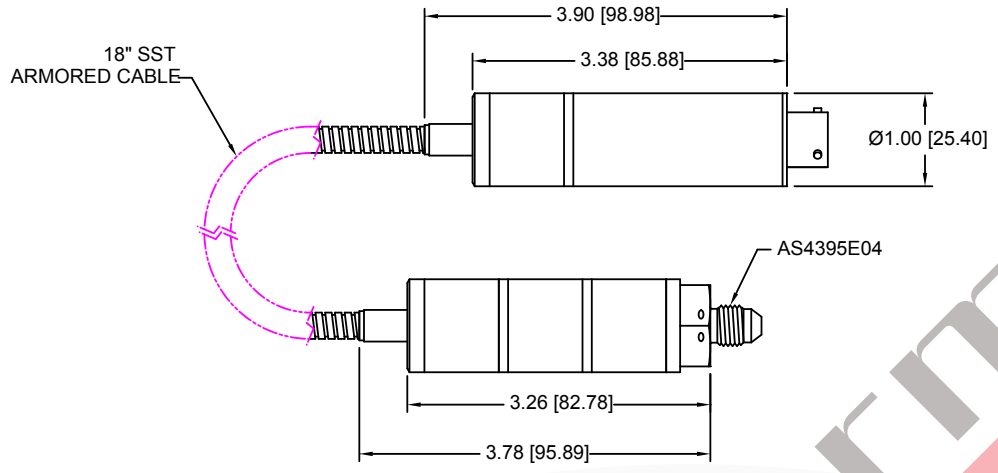
FIELD OPTIONS:

- Choice of 0 to 5 Vdc, 0 to 10 Vdc (also 4-wire isolated version), 4-20 mA, CANBus, RS485 or USB output
- Alternate remote electronic cable lengths
- Zero and span adjustments
- Cryogenic service down to -320 °F (-196 °C) (see GP:50 Model 7720)

GP:50 MODEL 7780

DIMENSIONAL DRAWING

All dimensions are in inches (mm)



STANDARD WIRING

PIN	VDC	4-20mA
A/1	+EXC	+EXC/SIG
B/2	+SIG	N/C
C/3	-SIG	N/C
D/4	-EXC	-EXC/SIG
E/5	SHUNT (OPT.)	SHUNT (OPT.)
F/6	SHUNT (OPT.)	SHUNT (OPT.)

REFERENCE SPECIFICATIONS

ELECTRICAL

- **Output Signal:** 0 to 5 Vdc, 0 to 10 Vdc (also 4-wire isolated version), 4-20 mA, CANBus, RS485 or USB output
- **Supply Voltage:** 18 to 36 Vdc, 9 to 36 Vdc unregulated
- **Response Time:** 4 ms
- **Connection:** MIL PTIH-10-6P, D38999 series III optional
- **Circuit Protection:** meets MIL-STD-461/462 EMI/RFI, some options may affect EMI/RFI rating

MATERIALS OF CONSTRUCTION

- **Wetted Parts:** 17-4 stainless steel (Optional Inconel, Hastelloy and Monel available)
- **Housing:** 316 stainless steel
  Flex Tubing 18" armored capillary tube

ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)

Static Accuracy (RSS): <±0.3% FSO, ±0.10% FSO available
Non-repeatability: <±0.1% FSO
Hysteresis: <±0.2% FSO
Non-linearity: <±0.2% FSO

MECHANICAL

- **Process connection:** AS4395E04 pressure port
- **Proof Pressure:** 1.5X pressure range
- **Burst Pressure:** 2X pressure range

PRESSURE RANGES

- Ranges 0 to 150 thru 0 to 15K PSIA, PSIG or PSISG options (10 thru 1,034 BAR)

THERMAL SPECIFICATION

- **Compensated:** 70 °F to +385 deg F (21°C to +197 °C)
- **Operating process:** -50 °F to +400 °F (-54 °C to +204 °C)
- **Operating ambient:** -50 °F to +195 °F (-54 °C to +91 °C)
- **Effect on Zero/Span:** ±2.0% FSO/100 °F
  (Improved to +/-1.0%/100 °F available)

OPTIONAL

- **NIST Traceability/Calibration:** ANSI-Z540-1
- **Workmanship:** J-001/NASA 8739.3 standard
- **Quality System:** ISO 9001:2008

Standard configurations shown.
Please consult factory for other options.

Tel:0755-82908211 Web:www.sensorstech.com