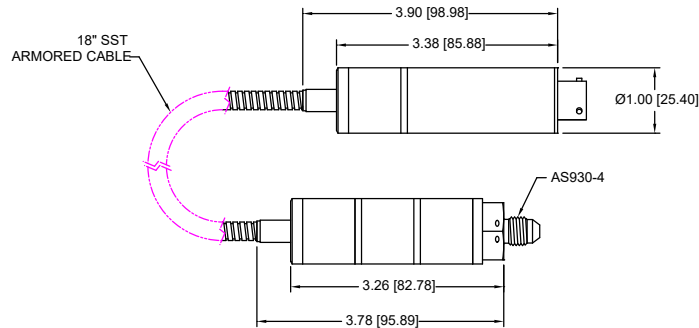


MODEL 7780 HIGH-TEMPERATURE PRESSURE TRANSDUCER



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.) |

**REF DIMENSIONS ONLY.
CONSULT FACTORY FOR ACTUAL DIMENSIONS.**

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.

FEATURES:

- Process temperature rated to +350 °F (+177 °C)
- Remote electronics via stainless steel flex cable
- 4-20 mA Output
- Standard accuracy to +0.2% FSO BFSL

APPLICATIONS:

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

OPTIONS:

- Digital outputs: CANbus, RS485 or USB
- 0-5 Vdc or 0 to 10 Vdc output (4-wire isolated option)
- Remote electronic cable lengths to 36"
- Zero and span adjustments
- Hydrogen or LXO compatibility options
- Cryogenic service down to -320 °F (-196 °C) (see GP:50 Model 7720)
- Various MIL-SPECS available. Consult factory.

GP:50 MODEL 7780

REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

| ELECTRICAL | |
|---------------------|---|
| Output Signal: | 4-20 mA 0 to 5 Vdc, 0 to 10 Vdc (isolated options) (CANbus, RS485 or USB options) |
| Excitation Voltage: | 10 to 36 Vdc (Options may affect this) |
| Response Time: | <5 ms |

| MATERIALS OF CONSTRUCTION | |
|---------------------------|--|
| Wetted Parts: | 17-4 PH (Inconel, Monel or Nitronic 50 available) |
| Housing: | 316 Stainless Steel |
| O-Ring: | Flourosilicone is standard |
| Flex Tubing: | 18" Armored flex (24" & 36" options) |

| ACCURACY (RSS): Hysteresis, Non-Linearity & Repeatability @ +70 °F | |
|--|--------------------|
| Static Accuracy (RSS): | ≤ ±0.3% FSO |
| Non-linearity: | ≤ ±0.20% FSO (Typ) |
| Hysteresis: | ≤ ±0.1% FSO (Typ) |
| Repeatability: | ≤ ±0.1% FSO (Typ) |
| Zero Balance: | ± 1.0% FSO |
| Span Balance: | ± 1.0% FSO |

(BFSL method used. Improved options available.)

| | |
|-----------------|-------------------------|
| Calibration: | NIST Traceable Cert |
| Workmanship: | IPC-A-610 Soldering std |
| Quality System: | ISO 9100 |

Options may affect specifications.
Please consult factory for your specific needs.

| MECHANICAL | |
|------------------------|--------------------------------------|
| Process Connection: | AS930-4 pressure port |
| Electrical Connection: | D38999 standard, options available |
| Proof Pressure: | 1.5X pressure range |
| Burst Pressure: | 2X-5X range dependent, 22.5K PSI max |
| Approximate Weight: | <10 oz (0.2 kg) |

| PRESSURE RANGES | |
|--|--|
| 0 to 300 thru 0 to 15K PSIA, PSIG or PSISG options (20 thru 1,034 BAR) | |

| THERMAL SPECIFICATIONS | |
|------------------------|---|
| Operating Process: | -65°F to +350 °F (-54 °C to +177 °C) |
| Operating Ambient: | -65°F to +250 °F (-54 °C to +121 °C) |
| Compensated Range: | +70 °F to +350 °F (+21.1°C to +177 °C) |
| Effect on Zero & Span: | ± 1.0% FSO/100 °F (Improved specifications available) |

