

DUAL TEMPERATURE / PRESSURE TRANSDUCER

Model 7880

Designed for the tough challenges and environmental rigors of space propulsion and aviation pressure testing.



- High Vibration Environments
- Manifolds, Propulsion Systems
- Military and Defense Applications

Heritage Includes:

- NASA
- Lockheed Martin
- EELV
- Johns Hopkins
- Shuttle Upgrade
- Boeing
- TRW-ABL
- Arkin Industries
- United Defense

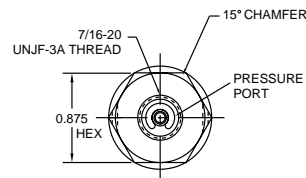
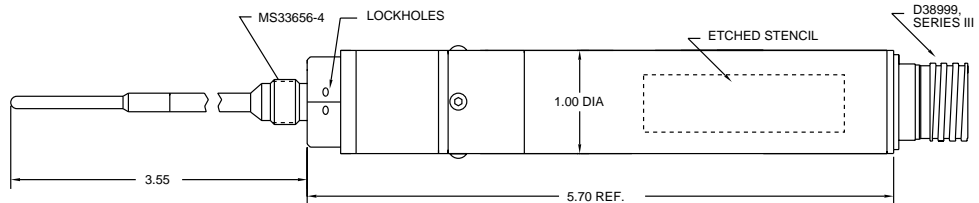
FEATURES:

- High accuracy, 0.3% RSS standard (0.1% available)
- -100°F to +250°F standard medium
- Lightweight, 8 ounces
- Hydrogen and LOX compatibility
- Custom probe lengths, 1.55" standard
- Designed to meet vibration and shock per MIL-STD-810
- 2 second time response for temperature, 0.5 sec optional
- 100 ohm platinum RTD standard

All GP:50 Aerospace pressure transducers are manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality assurance:

- NIST Traceability and CalibrationMIL-STD-45662A
- Workmanship J-001 / NASA 8739.3 standards
- Quality System ISO 9001:2000

Designed to: MIL-STD-810C&E
MIL-STD-461/462D&E



Units are in inches.

4-20 mA PIN OUT	Vdc PIN OUT
A = + EXCITATION / SIG. OUT	A = + EXCITATION
B = N / C	B = + SIG. OUT
C = N / C	C = - SIG. OUT
D = - EXCITATION / SIG. OUT	D = - EXCITATION
E = SHUNT OPTION	E = SHUNT OPTION
F = SHUNT OPTION	F = SHUNT OPTION

See reverse side for specifications and ordering guide.

SPECIFICATIONS

These specifications are the standards to which the units are normally constructed. Alterations may be easily and readily accomplished by the standard modification code or by discussion with the factory. Traceability, customer ATP, additional testing and construction options are available. We invite your inquiry.

Ranges	15 thru 15,000 PSIA, PSIG or PSISG options
FS Output at Rated Pressure	0-5 Vdc / 4-20 dcmA / Isolated options
Temperature Output	100 Ohm 2 wire platinum RTD standard, 1000 Ohm 2 wire platinum RTD optional
Excitation or Input Voltage	18 to 36 Vdc
Reverse Polarity Protected	
Non-Repeatability	< 0.1% FSO
Non-Linearity	< 0.2% FSO
Hysteresis	< 0.2 % FSO
Static Accuracy RSS (pressure)	< 0.3 % FSO RSS, 0.1% optional
Static Accuracy (temperature)	3% FSO, 1% optional
Pressure Medium (Wetted Materials)	316SS (Inconel, Hastelloy, Monel optional)
Operating/Environmental Temperature	-100°F to +250°F / -75°C to +120°C
Weight	8 oz. (approx.)
Electrical Connector	MIL PTIH-10-6P, D38999 series III
Response Time	Under 4 ms pressure, 2 seconds for temperature (0.5 sec optional)
Meets MIL-STD-461/462 EMI/RFI	Some options will affect EMI/RFI rating

ORDERING GUIDE:

Some options will affect dimensions, consult factory if important.

Use the following codes to identify desired item.

MODEL	OUTPUT	RANGE	PRESSURE TYPE	OPTIONS
•	—	•	—	•

Example: 7880-2-RH-G-CA/FD/GH

OUTPUT

- 2 0-5 Vdc 4 wire hookup
- 3 4-20 dcmA
- 4 0-5 Vdc Isolated
- 5 0-10 Vdc 4 wire hookup
- 6 0-10 Vdc Isolated
- 9 0-5 Vdc 3 wire hookup
- 10 0-10 Vdc 3 wire hookup

RANGE (PSI)

- | | |
|----------|-------------|
| PP 0-15 | RK 0-750 |
| PR 0-20 | RM 0-1000 |
| PO 0-25 | RO 0-1500 |
| PV 0-50 | RR 0-2000 |
| PZ 0-100 | RT 0-3000 |
| RB 0-150 | RV 0-5000 |
| RD 0-200 | RX 0-7500 |
| RF 0-300 | RZ 0-10,000 |
| RH 0-500 | SB 0-15,000 |

Contact factory
for non-standard
pressure ranges

PRESSURE TYPE

- A Sealed Absolute, ref to vacuum
- G Gage, ref to atmosphere
- SG Sealed Gage, ref to 14.7 psia

OPTIONS

CONNECTORS:

- CA PTIH-10-6P Bendix
- CI D38999/27YB98PN
- DB D38999/27YA35PN

PORTS:

- FA MS33649-4, 7/16-20 (F)
(made with an adapter)
- FD MS33656-4, 7/16-20 (M)

MISC:

- D Improved Accuracy to 0.1% Pressure,
and 1% Temperature
- GB Alternate Full Scale Outputs
- GH 100% Internal Shunt
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- GU Monel Pressure Cavity
- JB 1000 ohm 2 wire RTD
- ME Shunt Cal, 80% Internal
- QV Improved response time to 0.5 seconds

GP:50 reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.