



# MARINE SERVICE (UNDERSEA) DIFFERENTIAL PRESSURE TRANSDUCER

## Model 7540 (OIL FILLED)

Designed for the tough challenges and environmental rigors of undersea service.

- Minisub Hydraulic Systems
- Submarine Propulsion Systems

### FEATURES:

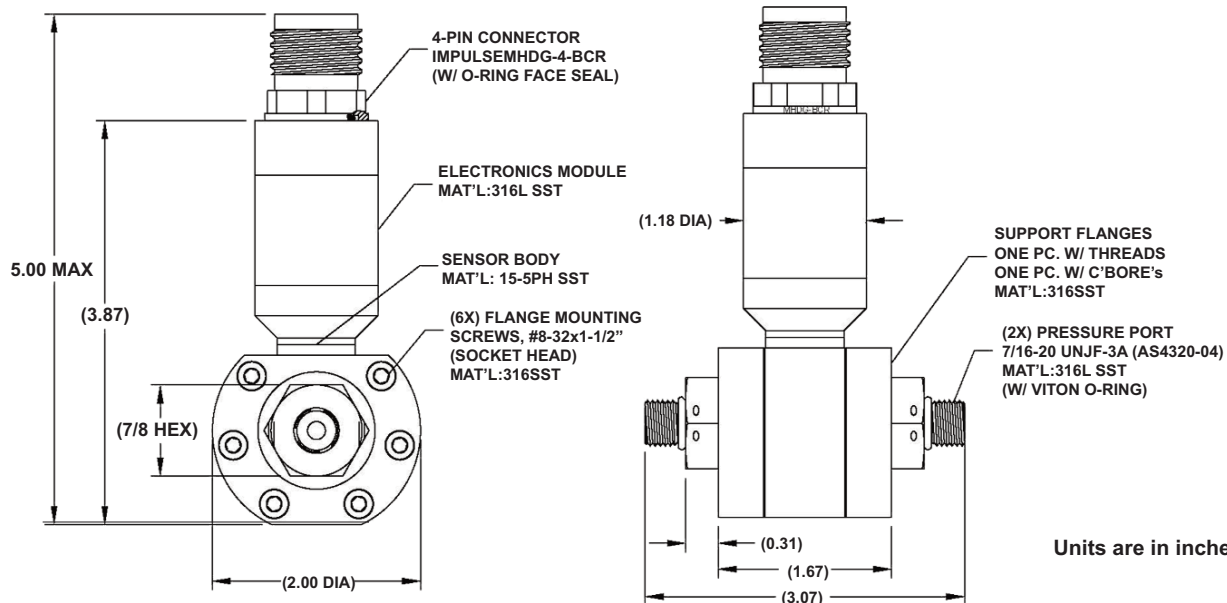
- High accuracy and high repeatability
- Stainless steel housing and sealed electronics, Monel/Inconel available
- Mechanical stops for overload protection
- Cavity material options for special environments
- 10,000 PSI external pressure capable



The Model 7540 pressure transducers is manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality assurance:

- NIST Traceability and Calibration..... ANSI-Z540-1
- Workmanship ..... J-001 / NASA 8739.3 standards
- Quality System ..... ISO 9001:2000

Designed to: MIL-STD-810C&E



Units are in inches.

	4-20 mA PIN OUT	0-5 Vdc or 0-10 Vdc PIN OUT
PIN 1	+ EXC./SIGNAL	+ EXC.
PIN 2	N/C OR OPTIONAL RTD	+ SIGNAL
PIN 3	N/C OR OPTIONAL RTD	- SIGNAL
PIN 4	- EXC./SIGNAL	- EXC.

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.

A5SL-7540.00 Rev E



Specifications reflect standard product, improved performance/mechanical options available. Modifications may alter specs, consult factory for more information.

<b>Ranges</b>	5 thru 5,000 PSID / bi-directional or uni-directional
<b>FS Output at Rated Pressure</b>	0-5 Vdc / 4-20 dcmA / 0-10 Vdc
<b>Proof Pressure</b>	1.5X pressure range (may be applied to either side)
<b>Burst Pressure</b>	2.0X pressure range (may be applied to either side)
<b>Maximum Line Pressure</b>	4,600 PSI
<b>Maximum Depth Pressure</b>	10,000 PSI (22,000 feet of seawater)
<b>Zero Shift</b>	<1% FSO with line pressure applied
<b>Excitation or Input Voltage Reverse Polarity Protected</b>	+18 thru +36 Vdc isolated
<b>Non-Repeatability</b>	<0.1% FSO
<b>Non-Linearity</b>	<0.2% FSO BFSL
<b>Hysteresis</b>	<0.2% FSO
<b>Static Accuracy</b>	0.5% FSO
<b>Wetted Materials</b>	316SS, 15-5PH (17-4PH), Inconel, Monel optional)
<b>Temperature Compensation</b>	25°F to 110°F standard, custom available
<b>Operating/Environmental Temperature</b>	-30°F to +170°F / -34°C to +77°C -40°F to +200°F option
<b>Weight</b>	3.5 lbs. (some options may affect weight)
<b>Pressure Port</b>	MS 33656-4 (M) standard 7/16-20
<b>Electrical Connector</b>	MHDG-4-BCR 4 pin Impulse connector
<b>Mechanical Stops</b>	Optional for proof pressure > 1.5X pressure range
<b>Response Time</b>	Under 4 ms
<b>EMI/RFI Protection</b>	Optional

## 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: 7540-2-RH-D-DN/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

### PRESSURE RANGE (PSI)

- PJ 0-5      RD 0-200
- PN 0-10     RF 0-300
- PP 0-15     RH 0-500
- PR 0-20     RK 0-750
- PO 0-25     RM 0-1,000
- PT 0-30     RO 0-1,500
- PV 0-50     RR 0-2,000
- PZ 0-100    RS 0-3,000
- RB 0-150    RV 0-5,000

### PRESSURE TYPE

- D Differential

### OPTIONS

#### CONNECTORS

- DF XSEE-6-BCR (Seacon 6-pin)
- DH XSJJ-2-BCR (Seacon 2-pin)
- DJ XSJJ-4-BCR (Seacon 4-pin)
- DN MHDG-4-BCR (Seacon 4-pin)

#### PORTS

- FA MS33649-4, 7/16-20 (F)
- FD MS33656-4, 7/16-20 (M)

#### MISC:

- GF 0-200°F on oil filled
- GH 100% Internal Shunt
- GK Inconel Pressure Cavity
- GL Cleaning for oxygen service
- GP Hastelloy Pressure Cavity
- JA 100 ohm 2 wire RTD
- JB 1000 ohm 2 wire RTD
- ME Shunt cal, 80% Internal
- MS Bi-Directional
- QU Monel 500 sensor, 400 wetted parts