



## SUBSEA DIFFERENTIAL PRESSURE TRANSDUCER

### MODEL 7540



Model 7540  
Subsea Differential Pressure Transducer

#### FEATURES:

- Ranges from 30 thru 7,500 PSID (2 thru 517 BAR)
- Up to 10K PSI (689 BAR) line and proof pressure
- Depths to 30K ft WC (9,144 meters)
- Compact, seawater rated design
- Designed to meet stringent MIL-Spec requirements
- NIST traceable
- Optional improved accuracy to  $\pm 0.05\%$  FSO (BFSL)

#### APPLICATIONS:

- Submarine hydraulic systems
- Submarine propulsion systems
- Subsea oil wellhead pressures
- BOP control systems

#### PRODUCT OVERVIEW:

The Model 7540 from GP:50 is a highly rugged differential pressure transducer, designed to address the tough environmental challenges of subsea and other marine service environments. It is designed to meet stringent MIL and MIL-Spec standards for high-reliability within extreme environments.

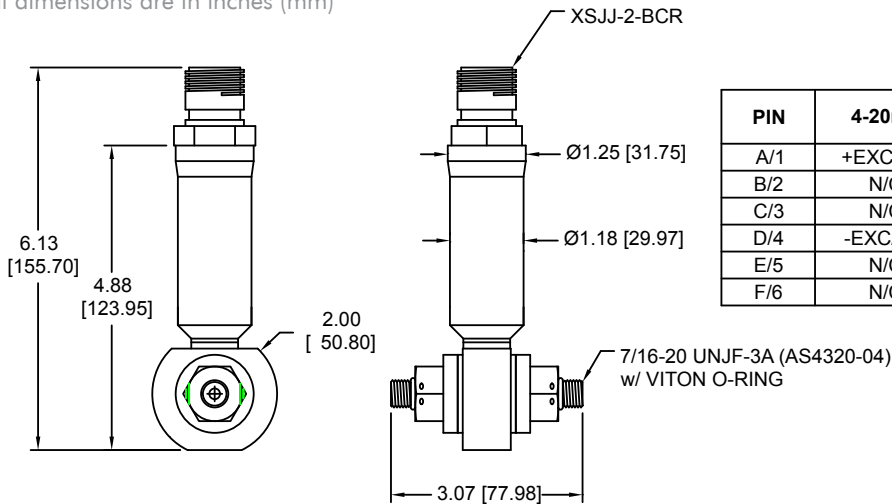
#### FIELD OPTIONS:

- 0-5 Vdc, 0-10 Vdc or 4-20 mA output
- Optional digital output (CANbus, RS485, USB)
- 316L stainless steel, Inconel or Hastelloy construction
- 10K PSI (689 BAR) static line pressure
- Wide selection of subsea rated connectors
- Bidirectional or unidirectional output
- RS232 and CANbus options available, consult factory

# GP:50 MODEL 7540

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)



## STANDARD WIRING

PIN	4-20mA	4-WIRE VDC ISOLATED	4-WIRE VDC NON-ISOLATED	3-WIRE VDC
A/1	+EXC/SIG	+EXC	+EXC	+EXC
B/2	N/C	+SIG	+SIG	+SIG
C/3	N/C	-SIG	-SIG*	N/C
D/4	-EXC/SIG	-EXC	-EXC*	-EXC/SIG
E/5	N/C	N/C	N/C	N/C
F/6	N/C	N/C	N/C	N/C

\*COMMONS JUMPERED

## REFERENCE SPECIFICATIONS

ELECTRICAL	MECHANICAL
<ul style="list-style-type: none"> <li><b>Output Signal:</b> 0-5 Vdc, 0-10 Vdc and 4-20 mA (CANBus RS485 and USB)</li> <li><b>Supply Voltage:</b> 18 to 36 Vdc (Vdc output) 9 to 36 Vdc (4-20 mA output)</li> <li><b>Load Impedance (4-20 mA):</b> 1,350Ω max. at 36 Vdc 750Ω max. at 24 Vdc 300Ω max. at 18 Vdc</li> <li><b>Output Current (0 to 5 Vdc):</b> 2 mA max for ± 0.1% FSO attenuation</li> <li><b>Input Current:</b> 10 mA nominal 4-wire isolated Vdc output - 45 mA nominal</li> <li><b>Response Time:</b> &lt;4 ms</li> <li><b>Connection:</b> XSJJ-2-BCR (Seacon 2-pin) standard, other options available, consult factory</li> </ul>	<ul style="list-style-type: none"> <li><b>Process connection:</b> 7/16-20 UNJF-3A (AS4320-04) For ranges &gt; 10K PSI: High pressure coned per Autoclave Engineers F-250C</li> <li><b>Proof Pressure:</b> 1.5X Pressure Range or 10K PSI (689 BAR), whichever is less (10X optional)</li> <li><b>Burst Pressure:</b> 3X Pressure Range or 10.5K PSI (724 BAR), whichever is less (15X optional)</li> <li><b>Line Pressure:</b> 3K PSI (207 BAR), optional 10K PSI (689 BAR)</li> <li><b>Line Pressure Effect (Zero):</b> &lt;±1% FSO at 1K PSI (69 BAR) &lt;±2.5% FSO at 3K PSI (207 BAR) &lt;±5% FSO at 10K PSI option (689 BAR)</li> <li><b>Approximate Weight:</b> 2 lb (0.9 Kg some options may affect weight)</li> </ul>
<b>STATIC ACCURACY (BFSL)</b> (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)	<b>PRESSURE RANGES</b>
<ul style="list-style-type: none"> <li><b>Static Accuracy:</b> &lt;±0.3% FSO, ±0.10% FSO or ±0.05% FSO</li> <li><b>Zero balance/span balance:</b> ±0.5% FSO</li> <li><b>Non-repeatability:</b> &lt;±0.1% FSO</li> <li><b>Hysteresis:</b> &lt;±0.2% FSO</li> <li><b>Non-linearity:</b> &lt;±0.2% FSO</li> <li><b>Thermal Error:</b> ±0.5% FSO/100 °F</li> <li><b>Total Error Band:</b> ±1.3% FSO (includes all 5 parameters)</li> </ul>	<ul style="list-style-type: none"> <li>30 thru 7,500 PSID (2.1 thru 517.1 BAR) bidirectional or unidirectional</li> </ul>
<b>MATERIALS OF CONSTRUCTION</b>	<b>THERMAL SPECIFICATION</b>
<ul style="list-style-type: none"> <li><b>Wetted Parts:</b> 316L stainless steel</li> <li><b>Housing:</b> 316L stainless steel (optional Inconel, Hastelloy or Monel)</li> </ul>	<ul style="list-style-type: none"> <li><b>Compensated Ambient:</b> -30 °F to +160 °F (-34 °C to +71 °C)</li> <li><b>Operating Ambient:</b> -40 °F to +190 °F (-40 °C to +88 °C)</li> <li><b>NIST Traceability/Calibration:</b> ANSI-Z540-1</li> <li><b>Workmanship:</b> J-001/NASA 8739.3 standard</li> <li><b>Quality System:</b> ISO 9001:2008</li> </ul>

**Standard configurations shown.  
Please consult factory for other options.**

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.

