

SUBSEA DIFFERENTIAL PRESSURE TRANSDUCER



Model 7540
Subsea Differential Pressure Transducer

MODEL 7540

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
- Manufactured to 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 manufactured and tested to stringent MIL and MIL-spec standards for high-reliability within extreme environments.

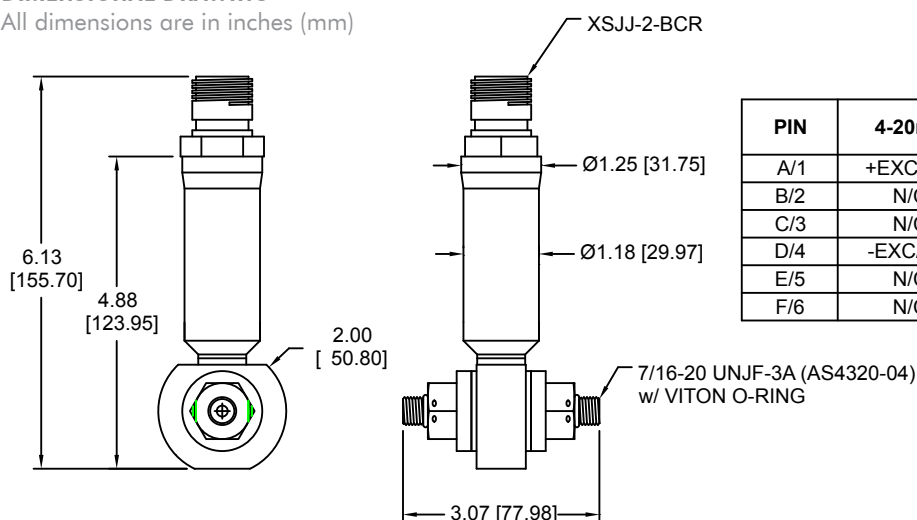
FIELD OPTIONS:

- 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 JUMPED

REFERENCE SPECIFICATIONS

ELECTRICAL
<ul style="list-style-type: none"> • Output Signal: 0-5 Vdc, 0-10 Vdc and 4-20 mA (CANBus RS485 and USB) • Supply Voltage: 18 to 36 Vdc (Vdc output) 9 to 36 Vdc (4-20 mA output) • Load Impedance (4-20 mA): 1,350Ω max. at 36 Vdc 750Ω max. at 24 Vdc 300Ω max. at 18 Vdc • Output Current (0 to 5 Vdc): 2 mA max for ± 0.1% FSO attenuation • Input Current: 10 mA nominal 4-wire isolated Vdc output - 45 mA nominal • Response Time: <4 ms • Connection: XSJJ-2-BCR (Seacon 2-pin) standard, other options available, consult factory
STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)
<ul style="list-style-type: none"> • Static Accuracy: <±0.3% FSO, ±0.10% FSO or ±0.05% FSO • Zero balance/span balance: ±0.5% FSO • Non-repeatability: <±0.1% FSO • Hysteresis: <±0.2% FSO • Non-linearity: <±0.2% FSO • Thermal Error: ±0.5% FSO/100 °F • Total Error Band: ±1.3% FSO (includes all 5 parameters)
MATERIALS OF CONSTRUCTION
<ul style="list-style-type: none"> • Wetted Parts: 316L stainless steel • Housing: 316L stainless steel (optional Inconel, Hastelloy or Monel)

MECHANICAL
<ul style="list-style-type: none"> • Process connection: 7/16-20 UNJF-3A (AS4320-04) For ranges >10K PSI: High pressure coned per Autoclave Engineers F-250C • Proof Pressure: 1.5X Pressure Range or 10K PSI (689 BAR), whichever is less (10X optional) • Burst Pressure: 3X Pressure Range or 10.5K PSI (724 BAR), whichever is less (15X optional) • Line Pressure: 3K PSI (207 BAR), optional 10K PSI (689 BAR) • Line Pressure Effect (Zero): <±1% FSO at 1K PSI (69 BAR) <±2.5% FSO at 3K PSI (207 BAR) <±5% FSO at 10K PSI option (689 BAR) • Approximate Weight: 2 lb (0.9 Kg some options may affect weight)
PRESSURE RANGES
<ul style="list-style-type: none"> • 30 thru 7,500 PSID (2.1 thru 517.1 BAR) bidirectional or unidirectional
THERMAL SPECIFICATION
<ul style="list-style-type: none"> • Compensated Ambient: -30 °F to +160 °F (-34 °C to +71 °C) • Operating Ambient: -40 °F to +190 °F (-40 °C to +88 °C)
<ul style="list-style-type: none"> • 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.**

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.