



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

Tel. (716) 773-9300 • Fax (716) 773-5019

sales@gp50.com • www.gp50.com

MARINE SERVICE (SUB SEA) DIFFERENTIAL PRESSURE TRANSDUCER

Model 7540

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

FEATURES:

- Rated to 10,000 PSI/23,000 FT WC
- Compact, Rugged Design rated for Seawater
- Line and proof pressure options to 10,000 PSI
- Manufactured to MIL & MIL-Spec Standards

Typical Applications:

- Mini-sub Hydraulic Systems
- Submarine Propulsion Systems
- Subsea Oil Well Head Pressures

Heritage Includes:

- Lockheed Martin Maritime
- Institute of Ocean Technology
- Schilling Robotics



Model 7540 series is manufactured and tested to the following MIL-STD and MIL-Spec standards to insure the highest quality:

- NIST Traceability and Calibration..... ANSI-Z540-1
- Workmanship J-001 / NASA 8739.3 standards
- Quality System ISO 9001:2008

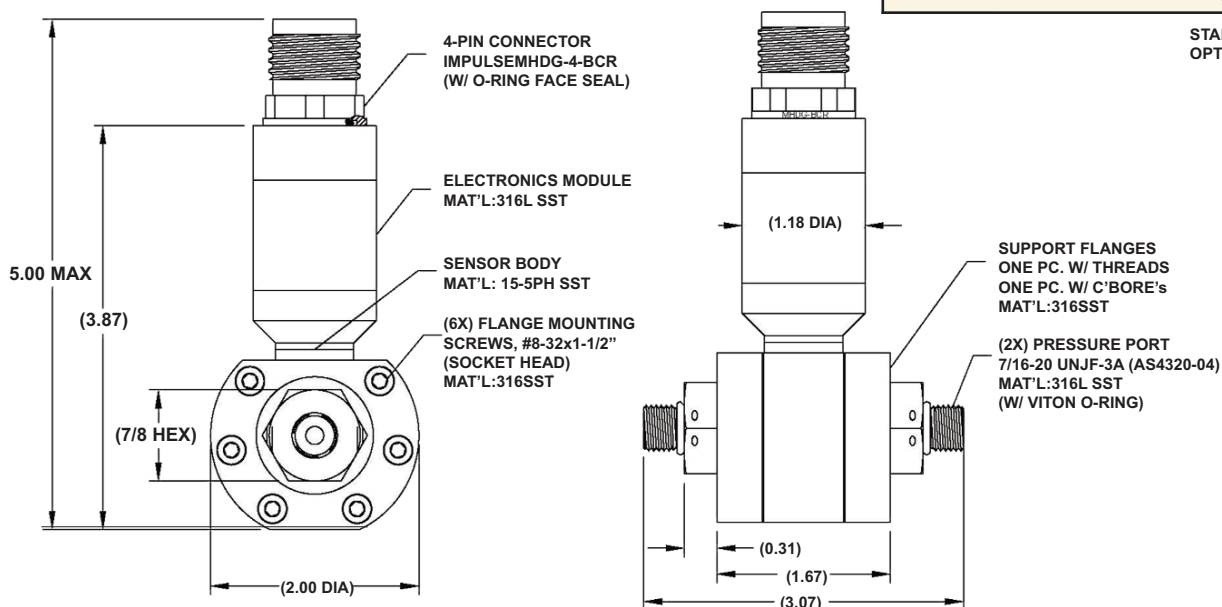
Designed to: MIL-STD-810C&E

WIRING CODE

PIN	4-20 MA	4-WIRE MV/V & 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				

SEE INSTALLATION MANUAL FOR PINOUT ASSIGNMENT BASED ON ELECTRONICS OPTIONS

Units are in inches.



STANDARD WIRING.
OPTIONS MAY AFFECT PIN OUT

A5SL-7540.00 Rev F

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.



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

Tel. (716) 773-9300 • Fax (716) 773-5019

sales@gp50.com • www.gp50.com

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

Ranges	30 thru 7,500 PSID (Bi-directional or uni-directional)
Maximum Depth Pressure	10,000 PSI (23,000 Ft of seawater)
Proof Pressure (High or Low side)	2 X Pressure Range or 10,000 psi whichever is less (10X optional)
Static Line Pressure	3,000 psi or (10,000 psi-HM option)
Burst Pressure (High or Low side)	3.0 X Pressure Range or 10,500 psi whichever is less (15 X optional)
Zero Balance / Span Balance	±0.5% FSO Each
Static Accuracy (BFSL)	<±0.3% FSO
Non-Repeatability	<±0.1% FSO
Non-Linearity (BFSL)	<±0.2% FSO
Hysteresis	<±0.2% FSO
Thermal Error	Zero ±1.0% FSO / 100° F Span ±1.0% FSO / 100° F
Total Error Band (all 5 parameters)	±2.3% FSO
Line Pressure Effect (Zero)	<±1% FSO at 1,000 psi, <±2.5% FSO at 3,000 psi, (<±5% FSO at 10,000 psi - option HM)
Response Time	< 4 ms
Excitation	18V - 36 Vdc (others available)
Input Current	4-Wire Isolated Vdc Options - 45mA nominal / Non-Isolated Vdc -10mA nominal
Output Current (VDC Units)	2 mA max for <0.1% FSO attenuation
Load Impedance (4-20mA Units)	1,350 ohms max. at 36 Vdc, 750 ohms max. at 24 Vdc, 300 ohms max. at 18 Vdc
Temperature Limits Compensated Operating	20°F to 70°F (Expanded ranges available) 20°F to 70°F (Expanded ranges available)
Wetted Parts	316 SST & 15-5 PH or 17-4 PH SST (Inconel or Monel optional)
Pressure Port	MS 33656-4 (M) (7/16-20) standard
Electrical Connector	See connector options
Weight	2.0 lbs 2.5 lbs with option HM (some options may affect weight)

ORDERING GUIDE:

MODEL	OUTPUT	RANGE	PRESSURE TYPE	OPTIONS
●	—	●	—	●

Some options will affect dimensions, consult factory if important.
Use the following codes to identify desired item.

Example: 7540-2-RH-D-DN/FD/GH

OUTPUT

- 2 0-5 Vdc (Non-Isolated, 4 wire hookup)
- 3 4-20 dcmA (recommended for long supply cable runs)
- 4 0-5 Vdc (Isolated, 4 wire hookup)
- 5 0-10 Vdc (Non-Isolated, 4 wire hookup)
- 6 0-10 Vdc (Isolated, 4 wire hookup)
- 9 0-5 Vdc (3 wire hookup)
- 10 0-10 Vdc (3 wire hookup)

Isolated=Input isolated from Output signal

PRESSURE RANGE (PSI) ** Option HM Standard

PJ 0-5	PZ 0-100	RO 0-1,500
PN 0-10	RB 0-150	RR 0-2,000
PP 0-15	RD 0-200	RT 0-3,000 **
PR 0-20	RF 0-300	RV 0-5,000 **
PO 0-25	RH 0-500	RW 0-6,000 **
PT 0-30	RK 0-750	RX 0-7,500 **
PV 0-50	RM 0-1,000	

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	0-120°F on oil filled undersea units
GH	100% Internal Shunt
GK	Inconel Pressure Cavity
GL	Cleaning for oxygen service
GP	Hastelloy Pressure Cavity
JA	100 ohm 2 wire Platinum RTD, 0.0385 alpha
JB	1000 ohm 2 wire Platinum RTD, 0.0385 alpha
ME	Shunt cal, 80% Internal
MS	Bi-Directional Allows for both positive & negative output, for option 3, 12mA
QU	Monel 500 sensor, 400 wetted parts
HM	10,000 psi Base Pressure Flange Girdle
GD	10X PR for proof pressure (may affect overall performance, not available with options GP,GK,GF and less than 100 psid ranges)
MZ	Add Mechanical Stop for >5X proof with 1% FSO zero balance