

# A E R O S P A C E

GP:50 Aerospace Heritage products can be designed to meet various MIL Specifications. Consult factory.



### **PRODUCT OVERVIEW:**

Model 7450 is a high accuracy aerospace grade, high line - low range differential pressure transducer available with static line pressure to 5,000 PSI. Differential ranges as low as 0-2.5" WCD and a 500 PSI proof pressure are standard on all ranges. A custom subsea rated design allows operation to 23,000 FT SW.

### **FEATURES:**

- Ranges of 2.5" WCD thru 100 PSID (6.9 BAR)
- Up to 5,000 PSI line pressure option (345 BAR)
- ±0.1% FSO accuracy
- True Wet-Wet design
- Subsea rated option

### **APPLICATIONS:**

- Ground support systems
- Engine testing
- Launch vehicles
- Naval subsea testing
- Ground and engine testing

### **OPTIONS:**

- Wide selection of process and electrical connections
- Bidirectional operation
- Line pressure to 5K PSI (345 BAR)
- Zero and span adjustment
- Subsea rated version
- Various MIL-SPECS available. Consult factory.



# GP:50 MODEL 7450

## **REFERENCE SPECIFICATIONS**

# (Standard configurations shown, consult factory for other options)

| ELECTRICAL          |   |
|---------------------|---|
| Output Signal:      | 0 to 5 Vdc,0 to 10 Vdc or 4-20 mA<br>(Digital Output Options) |
| Excitation Voltage: | 9-32 Vdc for 4-20 mA and 0-5 Vdc non-<br>isolated             |
| Circuit Protection: | Reverse Polarity Protected                                    |
| Response Time:      | Typ 30 ms for 90% FSO   |

| MATERIALS OF CONSTRUCTION |  |  |
|---------------------------|--|--|
| Wetted Parts:             | 316 Stainless Steel (exotic materials available) |  |
| Housing:                  | 316 Stainless Steel                              |  |
| Internal Fill:            | DC-200 Silicone oil filled sensor                |  |

| ACCURACY (BFSL): Hysteresis, Non-Linearity & Repeatability @ +70 °F) |                  |  |
|--|------------------|--|
| Static Accuracy (RSS):   | ≤±0.3% FSO       |  |
| Non-Linearity:   | ≤0.15% FSO (Typ) |  |
| Hysteresis:  | ≤0.1% FSO (Typ)  |  |
| Repeatability:   | ≤0.1% FSO (Typ)  |  |
| Zero Balance:  | ±1.0% FSO        |  |
| Span Balance:  | ±1.0% FSO        |  |

(BFSL method used. Improved options available.)

| Calibration:    | NIST Traceable Cert |
|-----------------|---------------------|
| Workmanship:    | IPC-A-610 Soldering |
| Quality System: | ISO 9001            |

Options may affect specifications. Please consult factory for your specific needs.

| MECHANICAL                        |   |
|-----------------------------------|---|
| Process Connection:               | AS4395E04 standard  |
| Electrical Connection:            | PTIH-10-6P standard, Other options<br>available including subsea versions |
| Proof Pressure:                   | 500 PSI (34.5 BAR)  |
| Burst Pressure:                   | 2500 PSI (172 BAR) Single Ended   |
| Line Pressure:                    | 5,000 PSI Max (345 BAR)   |
| Zero Shift with Line<br>Pressure: | <1% FSO/1,000 PSI   |
| Secondary Containment:            | 4,500 PSI Optional  |
| Approximate Weight:               | <3 lbs (1.36078 kg)   |

#### **PRESSURE RANGES**

2.5" WCD thru 100 PSID

## THERMAL SPECIFICATIONS

| Operating Range:  | 0°F to +185 °F (-17.8 °C to +85 °C)<br>(Unit will operate to -40 °F (-40 °C) with<br>delayed response time) |  |
|---|---|--|
| Compensated Range:  | +32 °F to +180 °F (0 °C to +82 °C)  |  |
| Compensated Ranges from 0 °F to +250 °F (17.8 °C to +121 °C)<br>available |   |  |
| Effect on Zero & Span:  | $\pm 1.0\%$ FSO/100 °F (Improved specifications available)  |  |



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