Differential Pressure Transmitters

**Series 677B**

**Differential Pressure Transmitter**  
**NEMA 4 Enclosure with Integral Mounting Bracket**  
**Calibration Services Available**

The Series 677B Differential Pressure Transmitter is designed to measure pressures as low as 0.1 in w.c. with ±0.4% accuracy. Use Series 677B for building energy management systems, environmental pollution control, oven pressurization, lab and fume hood control, HVAC and VAV applications. The transmitter features 15 psi overpressure, reverse polarity protection and EMI/RFI protection. Internal regulation permits use with unregulated DC power supplies. The NEMA 4 housing allows for versatile mounting locations and integral mounting tabs simplify installation.

### Features/Benefits

- **NEMA 4 housing** enables a range of use outdoor or indoor where water is present.
- **High accuracy at low pressure ranges** provides exceptional value for ensuring tight-control and minimizing costly out of specification conditions.
- **Use with unregulated DC power** provides easy access to electrical supply reducing costly power conditioning and wiring.

### Applications

- Building energy management
- Environmental pollution control
- Bi-directional applications

### Specifications

- **Service:** Air and non-conductive, non-corrosive gases.  
  Wetted Materials: 302 SS, glass, nickel, silicone rubber and brass.  
  Accuracy: ±0.4% FS* at room temperature.  
  Stability: ±0.02% FS/yr.  
  Temperature Limits: Operating and Compensated: 0 to 185°F (-18 to 85°C); Storage: -45 to 220°F (-45 to 105°C).  
  Pressure Limit: 15 psi (100 kPa).  
  Thermal Effects: (Includes zero and span <0.02% FS/F, 0 to 185°F (-18 to 85°C).

### Accessories

- **Series 668**: Bi-directional models.
- **Series 677B**: 4-20 mA, 2-wire.

### Options

- Zero and Span Adjustments: Internally accessible potentiometers, non-interactive.
- Response Time: Approximately 10 ms.
- Max. Loop Resistance: DC: 0 to 800 Ω.
- Process Connection: 3/16" OD barbed brass pressure fitting.
- Weight: 11.5 oz (330 g).
- Agency Approvals: CE.

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**Series 668**

**Compact Differential Pressure Transmitter**  
**Ranges from 0 to 100 in w.c., Overpressure Protection to 10 psig, ±1% Accuracy**  
**Calibration Services Available**

Our low cost Series 668 Differential Pressure Transmitter is capable of measuring low pressures with ±1% accuracy - ideally suited for proper building pressurization and air flow control. Transmitters can withstand up to 10 psig overpressure with no damage to the unit. Variable capacitance sensor design provides excellent sensitivity and long-term stability. Compact, lightweight design makes installation simple and easy. Units also feature reverse-polarity protection.

### Features/Benefits

- **Good accuracy at low pressure ranges** provides exceptional value for ensuring control and minimizing costly out of specification conditions.
- **High overpressure rating** eliminates possible damage to unit reducing unnecessary service time.

### Applications

- Variable air volume systems
- Building management
- HVAC

### Specifications

- **Service:** Air and non-conductive, non-corrosive gases.  
  Accuracy: ±1% of full-scale (RSS) (includes non-linearity, hysteresis, and non-repeatability).  
  Temperature Limits: Operating: 0 to 150°F (-18 to 65°C); Storage: -45 to 185°F (-40 to 85°C).  
  Pressure Limit: 10 psig (0.69 bar).  
  Compensated Temperature: Range: 0 to 150°F (-18 to 65°C).  
  Thermal Effects: ±0.03% FS/F (0.018% FS/°F).  
  Supply Voltage: 12 to 30 VDC.

### Accessories

- **Series 668**: Bi-directional models.
- **Series 677B**: 4-20 mA, 2-wire.

### Options

- Zero and Span Adjustments: ±1 mA, non-interactive.
- Response Time: < 60 ms.
- Max. Loop Resistance: 0 to 800 Ω.  
  Electrical Connection: Terminal strip.  
  Process Connection: 3/16" OD fitting for 1/4" ID tubing.
- Housing: Fire retardant glass filled polyester.
- Weight: 3 oz (85 g).
- Agency Approvals: CE.

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<thead>
<tr>
<th>Model</th>
<th>Range (in w.c.)</th>
<th>Price</th>
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<tr>
<td>677B-01</td>
<td>0 to 0.1</td>
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<td>0 to 25</td>
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<td>677B-02</td>
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<td>0 to ±0.05</td>
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*RSS (Root Sum Square) includes non-linearity, hysteresis and non-repeatability.*

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<td>303 SS straight pressure tip with flange</td>
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<td>A-302F-A</td>
<td>303 SS straight pressure tip with mounting flange for 3/16&quot; ID rubber or plastic tubing; 4&quot; insertion depth; includes mounting screws</td>
<td>$6.67</td>
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*Items are not priced and are not subject to any discount.*

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<td>NISTCAL-PT1</td>
<td>NIST traceable calibration certificate</td>
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*USA: California Proposition 65*

**WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov**

Process Tubing Options: See page 503 (Gage Tubing Accessories)

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