830, 850 & 860 Series
General Purpose Pressure Sensors

**Description**

Dynisco models 830, 850, and 860 general purpose transducers offer flexible design and a pressure measurement accuracy of ±0.50% full scale output. Interchangeable configuration allows users to specify the pressure range, pressure port and output level that meet specific application requirements. A bonded strain gage sensor provides reliable operation in a wide range of industrial applications.

**Features**

- Accuracy ±0.5%
- 3 mV/V, 5 Vdc and 10 Vdc outputs
- 0 - 100 to 0 - 30,000 psi
- Excellent temperature compensation
- Internal shunt calibration
- Bonded strain gage sensor
## Performance Characteristics

<table>
<thead>
<tr>
<th>Pressure Range (psi):</th>
<th>0 - 100, 0 - 250, 0 - 500, 0 - 1,000, 0 - 1,500, 0 - 2,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000, 0 - 15,000, 0 - 20,000, 0 - 30,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy:</td>
<td>±0.5% FSO including linearity, hysteresis, and repeatability</td>
</tr>
</tbody>
</table>

## Electrical Characteristics

| Full Scale Output: | 830: 3 mV/V ±2.0%  
850/860: 5 Vdc/10 Vdc |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
850/860: 100 Ohms |
| Zero Balance: | 830: ±3% FSO                                                                                                                                  |
| Zero And Span Adjustment: | 850/860: ±5% FSO                                                                                                                                  |
| Excitation: | 830: 10 Vdc recommended, 15 Vdc maximum  
850: ±12 to ±16 Vdc, 24 to 32 Vdc  
860: ±14 to ±16 Vdc, 24 to 32 Vdc |
| Insulation Resistance: | 830: 1,000 megohms @ 50 Vdc  
850/860: 100 megohms @ 50 Vdc |
| Internal Shunt Calibration: | 30/850/860: 80% ±0.5% FSO (typical)  
80% ±1% FSO (maximum) |
| Input Current: | 850/860: 45 mA (maximum) @ 2K load |

## Temperature Characteristics

| Operating Range: | 830: -65° to +250°F  
(-54°C to +120°C)  
850/860: -20° to +185°F  
(-29°C to +85°C) |
| Compensated Range: | 830/850/860: 0° to 150°F  
(-18°C to +66°C) |
| Temperature Effect On Zero: | 830/850/860: ±0.01% full scale/°F (±0.018% full scale/°C)  
Typical; ±0.02% full scale /°F (±0.036% full scale/°C) maximum |
| Temperature Effect On Span: | 830: ±0.01% full scale/°F  
(±0.018% full scale/°C);  
850/860: ±0.02% full scale /°F  
(±0.036% full scale/°C) |

## Mechanical Characteristics

| Safe Overpressure: | 1.5 x rated pressure |
| Burst Pressure: | 100 to 250 psi:  
10 x rated pressure  
500 to 3,000 psi:  
5 x rated pressure  
5,000 to 10,000 psi:  
3 x rated pressure  
15,000 to 30,000 psi:  
2.5 x rated pressure |
| Wetted Material: | 17 - 4 PH,  
15 - 5 PH stainless steel |
| Cover Material: | 303, 304 stainless steel |
| Weight: | 850/860: Approximately 17 ounces;  
830: 13 ounces |
## Ordering Guide for 830, 850 & 860 Series

### Pressure References
- G = PSIG
- S = PSIS
- A = PSIA

### Model
- 830 = 0-30mV
- 850 = 0-5V
- 860 = 0-10V

### Pressure Range (psi)
- 1C = 0 - 100
- 2.5C = 0 - 250
- 5C = 0 - 500
- 1M = 0 - 1,000
- 1.5M = 0 - 1,500
- 2.5M = 0 - 2,500
- 3M = 0 - 3,000
- 5M = 0 - 5,000
- 7.5M = 0 - 7,500
- 10M = 0 - 10,000
- 15M = 0 - 15,000
- 20M = 0 - 20,000
- 30M = 0 - 30,000

### Pressure Port
- 0 = 1/8 - 27 NPT internal
- 1 = 1/4 - 18 NPT internal
- 2 = 7/16 - 20 UNF internal per MS33649 - 4
- 3 = Autoclave F - 250 - C internal
- 4 = 1/4 - 18 NPT external

### Electrical Termination
- 0 = Bendix PT02A - 10 - 6P 6 - pin connector
- 3 = 4' of 6 - conductor cable, 1/2 - 14 NPT conduit fitting

### Wiring
- 0 = 6 - pin connector
- 2 = 6 - conductor cable

### Dimensions

For additional options please consult factory.

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All dimensions are inches (mm) unless otherwise specified.

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Refer to www.dynisco.com for access to Operator Manual and other support documentation.