

831, 851, & 861 Series General Purpose Pressure Sensors

*RELIABLE OPERATION IN A WIDE
RANGE OF INDUSTRIAL APPLICATIONS*



Description

Dynisco models 831, 851, and 861 general purpose transducers offer flexible design and a pressure measurement accuracy of $\pm 0.25\%$ 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.

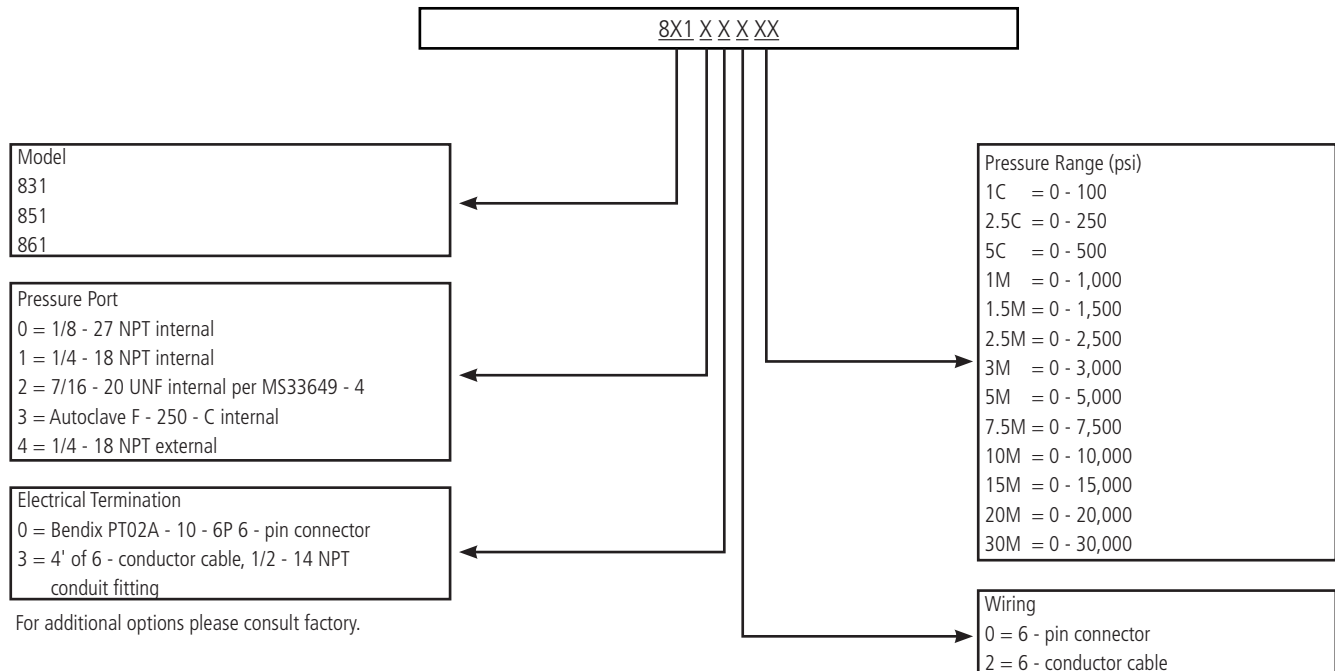
Features

- Accuracy $\pm 0.25\%$
- 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

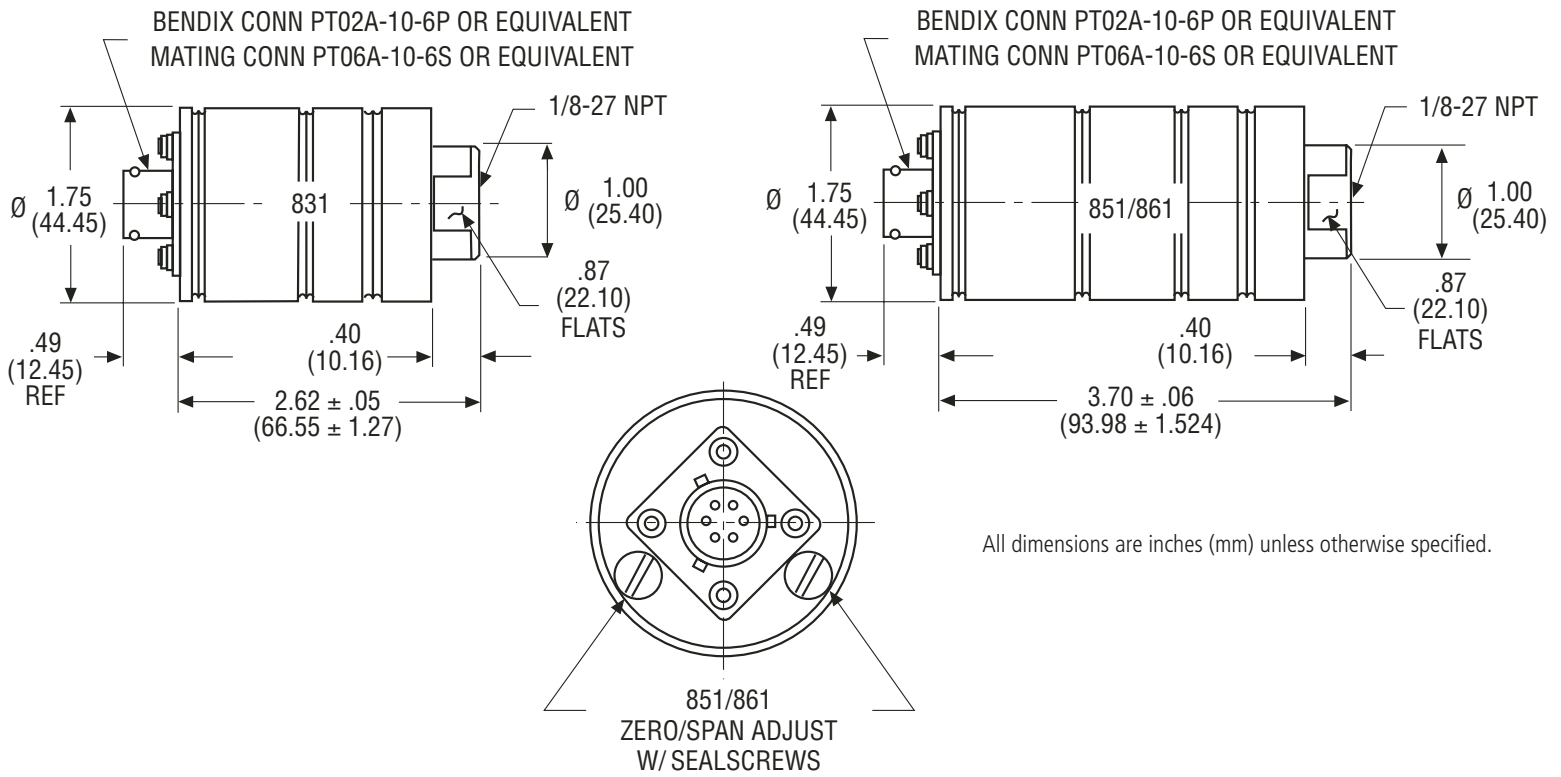
Performance Characteristics	
Pressure Range (psi):	0 - 100, 0 - 250, 0 - 500, 0 - 1,000, 0 - 1,500, 0 - 2,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000, 0 - 15,000, 0 - 20,000, 0 - 30,000
Accuracy:	±0.25% FSO including linear- ity, hysteresis, and repeat- ability
Electrical Characteristics	
Full Scale Output:	831: 3 mV/V ±0.5% 851/861: 5 Vdc/10 VDC
Input/Output Resistance:	831: 350 ±10 Ohms
Internal Shunt Calibration:	831/851/861: 80% ±0.5% FSO
Zero Balance:	831: ±2% FSO
Zero And Span Adjustment:	851/861: ±5% FSO
Input Voltage:	831: 10 Vdc recommended, 15 Vdc maximum 851: ±12 to ±16 Vdc, 24 to 32 Vdc 861: ±14 to ±16 Vdc, 24 to 32 Vdc
Insulation Resistance:	831: 1,000 megohms @ 50 VDC 851/861: 100 megohms @ 50 Vdc
Input Current:	851/861: 45 mA (maximum) @ 2K load

Temperature Characteristics	
Operating Range:	831: -65°F to +250°F (-54°C to +120°C) 851/861: -20°F to +185°F (-29°C to +85°C)
Compensated Range	831/851/861: 0°F to 150°F (-18°C to +66°C)
Temperature Effect On Zero:	831/851/861: ±0.005% full scale/°F(±0.009% full scale/°C)
Temperature Effect On Span:	831/851/861: ±0.005% full scale/°F(±0.009% full scale/°C)
Mechanical Characteristics	
Safe Overpressure:	1.5 x rated pressure
Burst Pressure:	100 - 250 psi: 10 x rated pressure 500 - 3,000 psi: 5 x rated pressure 5,000 - 10,000 psi: 3 x rated pressure
Wetted Material:	17 - 4 PH, 15 - 5 PH stainless steel
Cover Material:	303, 304 stainless steel
Weight:	851/861: Approximately 17 ounces; 831: 13 ounces

Ordering Guide for 831, 851, & 861 Series



Dimensions



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.
DS83561
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