

832 Series

Pressure sensors

Highly Accurate Pressure measurement



Description

Dynisco's 832 General Purpose Sensor offers highly accurate pressure measurement at ranges up to 10,000 PSI. Excellent temperature compensation provides superior performance at operating ranges of up to 250 degrees fahrenheit. Its high accuracy and versatile, rugged design make it ideal for applications as diverse as automotive test stands and polymer test equipment.

Features

- Accuracy $\pm 0.15\%$
- Excellent temperature compensation
- Welded, stainless steel construction
- 3mv/V output
- Internal shunt calibration

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
Accuracy:	±0.15% FSO including linearity, hysteresis, and repeatability

Electrical Characteristics

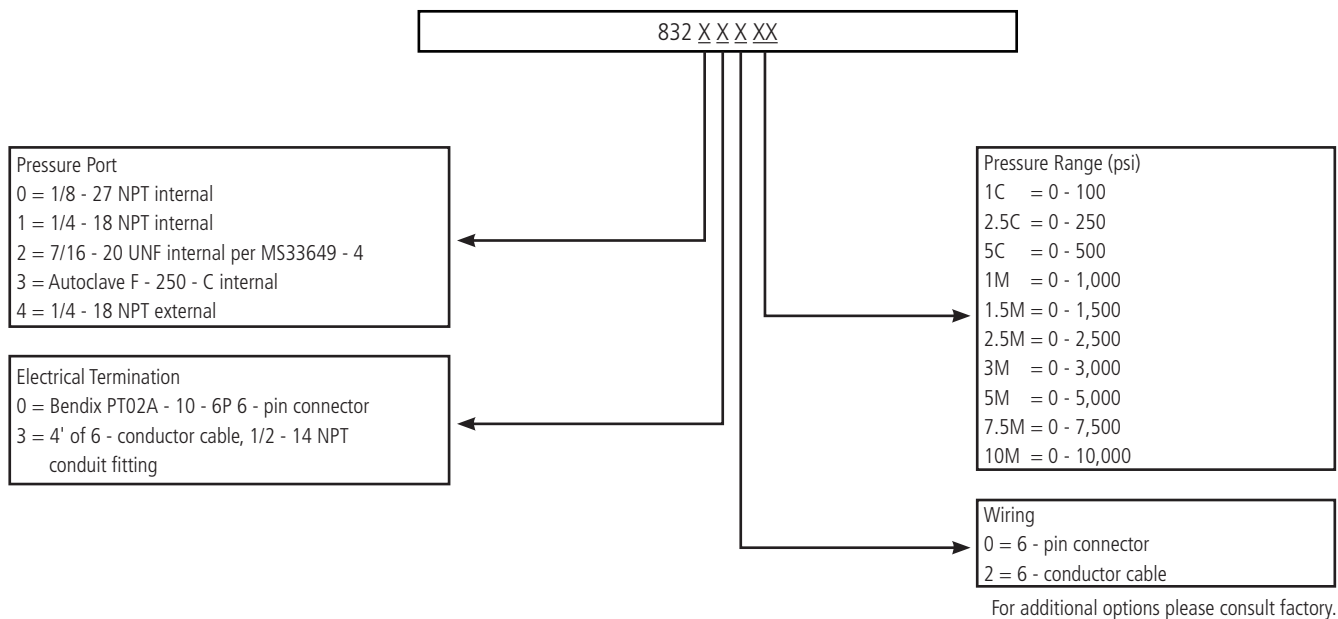
Full Scale Output:	3 mV/V ±0.25%
Input/Output Resistance:	350 Ohms ±5 Ohms
Zero Balance:	±1% FSO
Insulation Resistance:	1,000 megohms @ 50 Vdc
Internal Shunt Calibration:	80% ±0.5% FSO
Excitation:	10 Vdc recommended, 15 Vdc maximum

Temperature Characteristics

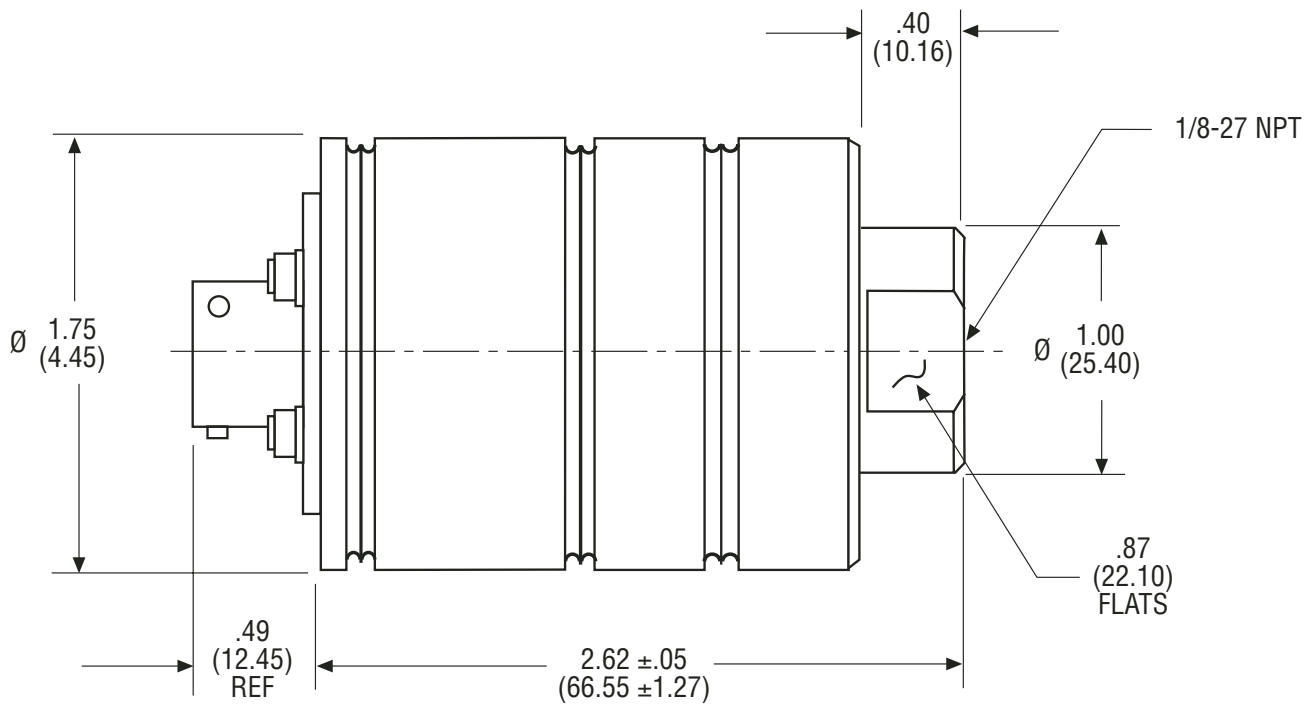
Operating Range:	-65°F to +250°F (-54°C to +120°C)
Compensated Range	0°F to 150°F (-18°C to +66°C)
Temperature Effect On Zero:	±0.003% full scale/°F (±0.005% full scale/°C)
Temperature Effect On Span:	±0.003% full scale/°F (±0.005% full scale/°C)

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:	Approximately 13 ounces

Ordering Guide for 832 Pressure Sensor

Dimensions



All dimensions are inches (mm) unless otherwise specified.

Wiring Code

Pin	Cable	Function
A	Red	Signal+
B	Black	Signal-
C	White	Excitation+
D	Green	Excitation-
E	Blue	Int. Shunt Cal.
F	Orange	Int. Shunt Cal.

Options

For Melt and Industrial Pressure Transducers and Transmitters

1. Options for Melt Pressure Transducers and Transmitters.

1.1 All detailed specifications for the below mentioned options see table next page (Specifications for tip-versions with 1/2"-20UNF thread).

B106	Oil fill material (safe for medical and food applications). Max. operating temperature 315°C. Available for all standard transducer and transmitter versions, pressure ranges 70 bar up to 700 bar. (Details and characteristics see on pages 112 / 113)
B170	Titanium nitride coated diaphragm , available for sensors with standard fill material with 15-5 PH- or the thicker Inconel 718-diaphragm as well as sensors with NaK fill material and Inconel 718 diaphragm.
B171	NaK fill alternate to the Standard fill material, only with Inconel 718 or Hastelloy C-276 diaphragm. High operating temperature up to 540°C only with Inconel 718 diaphragm. Max. pressure range 700 bar.
B173	Borafuse coated diaphragm for sensors with Inconel 718 diaphragm and the fill material standard or NaK. Best solution for applications in abrasive materials. Only for high pressure ranges 350 bar up to 1400 bar.
B220	The thicker Inconel 718 diaphragm with standard fill material.
H - Code	Hastalloy C-276 material of the diaphragm and transducer's lower stem and threads. Corrosion resistance against aggressive polymer and chemical materials.
XL - Code	Version with stronger, 0.15mm inconel 718 diaphragm , for high pressure ranges 200bar up to 2000bar
T80	0.008" thick 15-5 PH diaphragm with DyMax coating for any 1/2" thread transducer configurations with standard fill. Only for high pressure ranges 350 bar up to 1400 bar.

1.2 Additional general options

D01	Sealing surface flat (90°) instead of the standard 45° sealing surface.
D05	Cable connected output with cable bushing, IP65 protection, single wire end.
D30/xxx	Special calibration with range expansion of the signal output for MDT & EMT versions. Max. expansion up to 2-times, e.g. 100 bar range calibration max. 0-50 bar acc. 0-100% signal, 80% cal value of modified output signal.
D83	Weather proof matching plug 6-pin connector.
PT100	RTD100 Temperature measurement element instead of standard thermocouple.
S137	Thermocouple PT100 stem and flexible length like the pressure sensor dimension.
T93	0.009" thick diaphragm for M18x1.5 thread transducer versions
TCxx	Diverse thermocouples available, please call for specific delivery information



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