

Vertex™

MERCURY FREE SENSORS

MELT PRESSURE SENSOR SERIES



A new standard in Durability,
Environmental Safety,
and Reliability

Features

- No fill material or moving internal parts
- RoHS compliant for sustainability programs
- Robust Inconel diaphragm is coated with Dymax®
- Diaphragm is much thicker with unique sidewall support
- mV/V, 4-20mA outputs available
- Available with J-type thermocouple temperature output
- 0-1,500 to 0-10,000 psi pressure range capability
- 4 year warranty for proven lower cost of ownership

Description

Vertex™ is a Dynisco melt pressure sensor innovation that matches or exceeds the performance of the traditional sensor. The big differences are that Vertex is more robust, much faster, and significantly friendlier to the environment.

The direct measurement tip is a simpler, more elegant design, with a more robust diaphragm. Direct measurement of the process reduces errors that are transferred by complicated internal support structures, transmission fill materials, or moving push rods. The diaphragm is much thicker than traditional sensors and the sidewall structure is fortified to handle side stresses. Add to these features, a diaphragm composition of Inconel 718 coated with the corrosion and abrasion resistant properties of Dymax® and experience the true definition of a robust sensor that has proven to increase the life of the sensor and significantly lowers the cost of ownership.

Vertex design innovation also extends to the speed of response of the sensor. Faster processes and controls demand faster sensing measurements. Vertex is many times faster than traditional sensors improving real time production.

Environmental regulations and community conscientiousness are driving sustainability policies and programs in large and small companies. Waste stream reduction and longer life cycles are good for the environment and the budget. Dynisco can assist because Vertex is green, very green. There is no mercury, no NaK, no oil, no Gallium, no fill material what-so-ever. Vertex is also RoHS compliant.

Vertex sensors are available with 3.33mV/V or 4-20mA output signals and designed to work with universal pressure indicators. An optional J-type thermocouple is available to provide a melt temperature signal. Vertex is equipped with a 1/2-20 UNF for installation in standard transducer mounting holes.



Dynisco
38 Forge Parkway
Franklin, MA 02038
USA

Hotline 1-800-DYNISCO
Phone +1-508-541-9400
Fax +1-508-541-6206
Email infoinst@dynisco.com

Dynisco Europe GmbH
Pfaffenstr. 21
74078 Heilbronn
Germany

Phone +49-7131-297-0
Fax +49-7131-297-166
Email dyniscoeurope@Dynisco.com

www.Dynisco.com

Specifications

PERFORMANCE CHARACTERISTICS

Input, Excitation:	mV/V: 10-12VDC; mA: 16-36VDC
Output, Analog:	3.33mV/V or 4-20mA
Accuracy*:	±0.25% FS
Electronics Operating Temp. (Max):	185°F (85°C)
Zero Shift (Electronics Temp.):	0.012%/°F (0.022%/°C)
Span Shift (Electronics Temp.):	0.012%/°F (0.022%/°C)
Hex/Transition Temp. (Max):	300°F (150°C)
Zero Shift (Hex Temp.):	0.022%/°F (0.039%/°C)
Overload Pressure Rating:	1.5x FS
Pressure Ranges (psi):	1.5M, 3M, 5M, 7.5M or 10M
Pressure Units:	PSI, Bar, Kg/cm ² , MPa, KPa
Zero Balance Adjustment (±% FS):	mV/V: na; mA: -6 to +12%
Zero Balance Setting (±% FS):	mV/V: 10%; mA: ±3%
Insulation Resistance:	mV/V: 100 MΩ @50VDC;
Internal Shunt Calibration (R-Cal):	80% FSO ±1% FS

MECHANICAL & PACKAGING

Operating Temp. Range[^], Diaphragm:	-40°F to +752°F (-40°C to +400°C)
Diaphragm Wetted Parts:	Inconel 718, DyMax® coated
Zero Shift (Process Temp. Change):	1.0%/100°F (2.0%/100°C)
Process Connection:	1/2-20 UNF (with 45° conical seat)
Electrical Connection:	Bendix PT02A-10-6P
Mounting Torque:	250 in-lbs recommended, 500 in-lbs max
Temp. Sensor (Optional):	J-type thermocouple (available on flex units only)

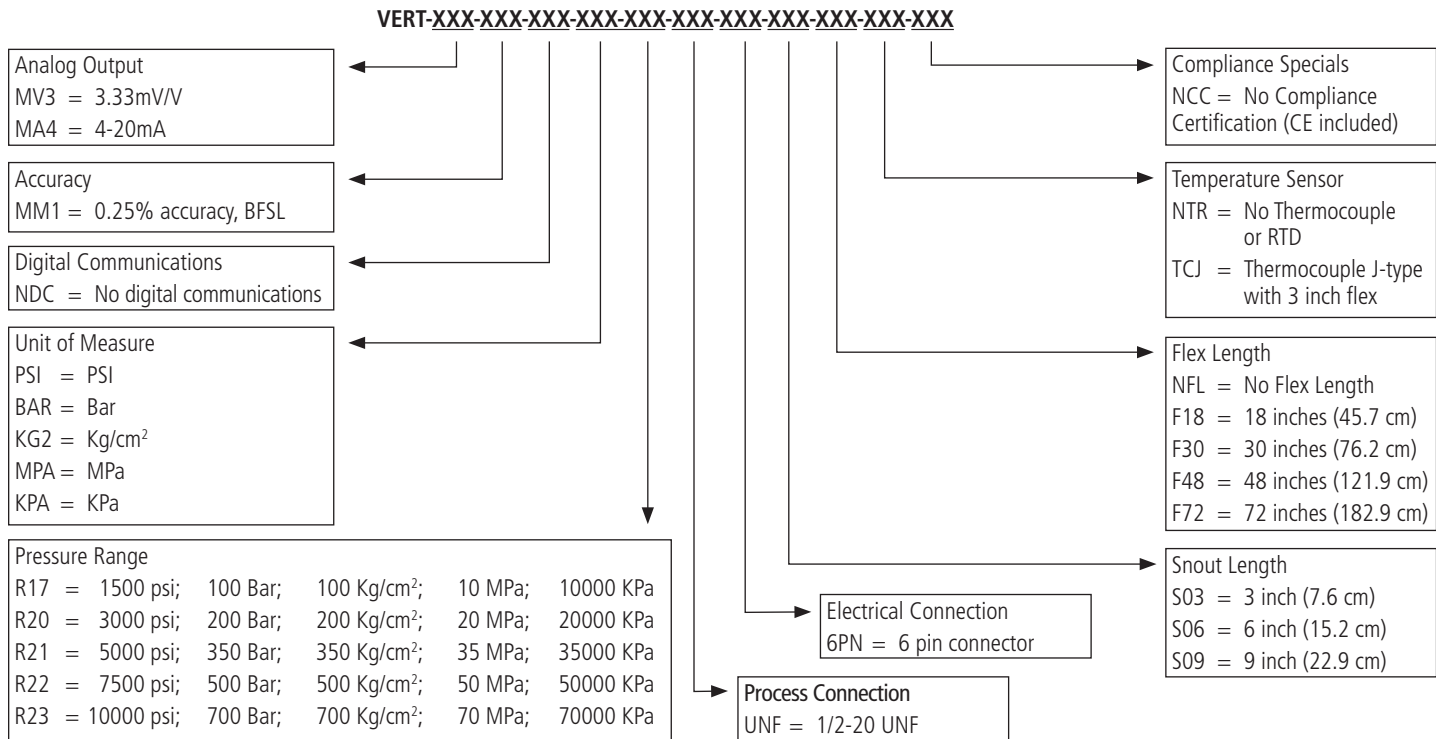
APPROVALS & CERTIFICATIONS

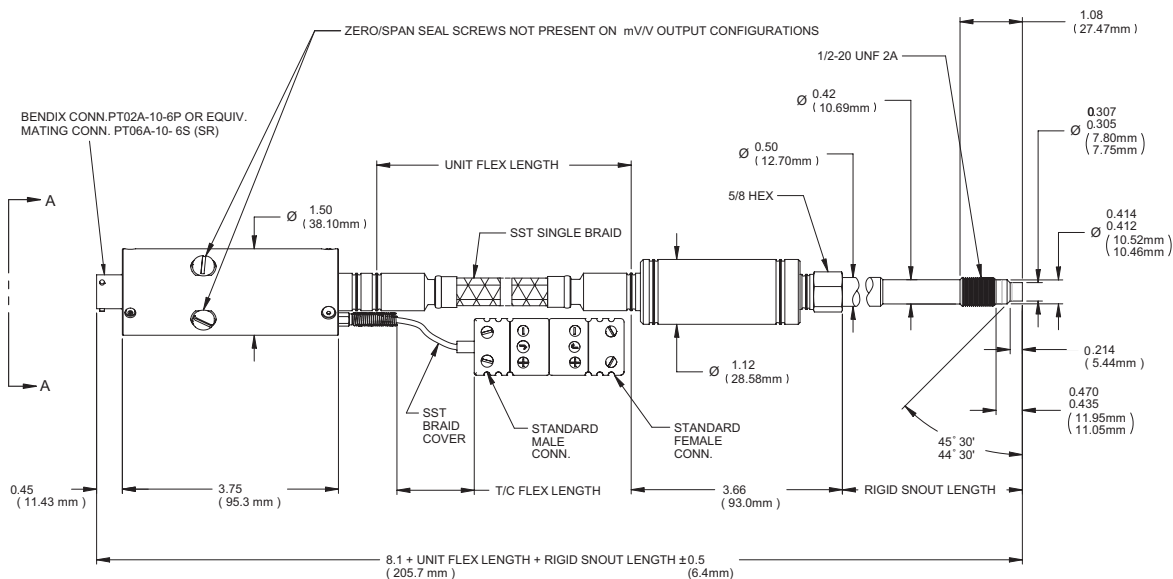
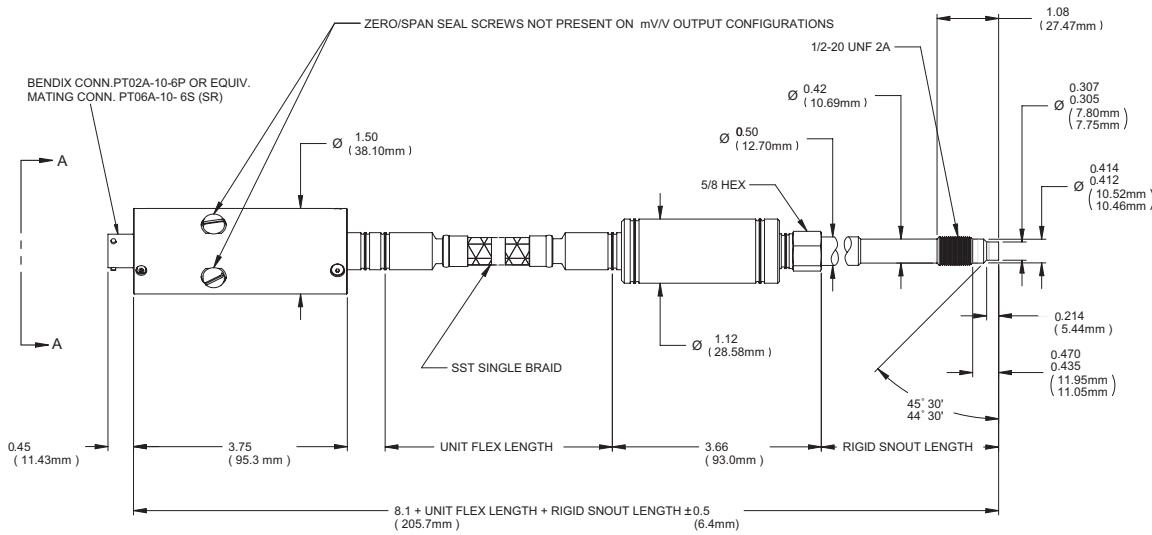
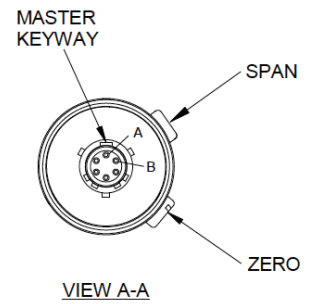
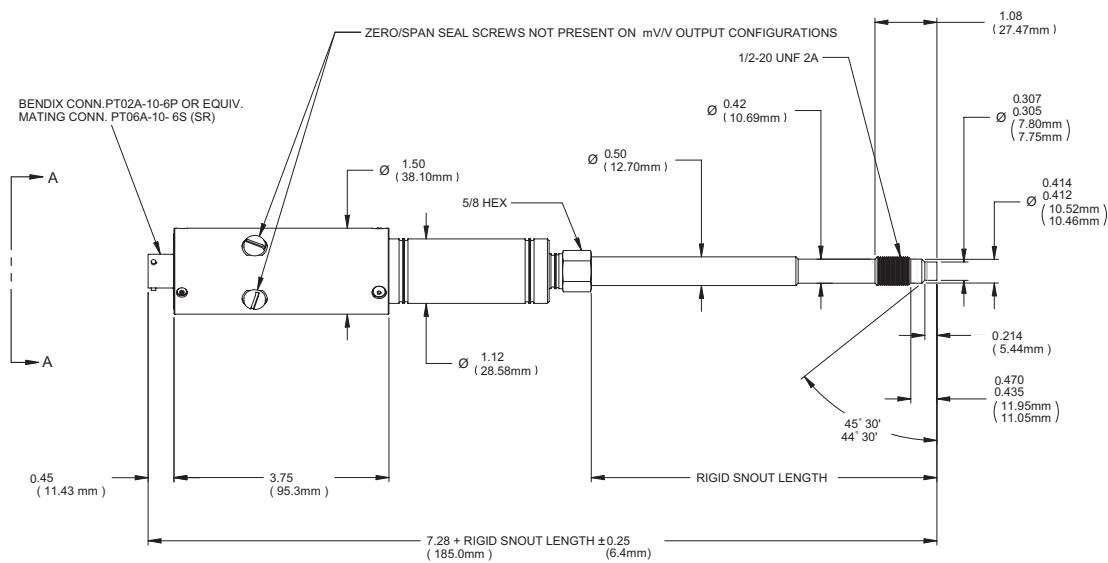
CE:	Directive 2004/108/EC
ISO:	ISO9001:2008 production environment

* **Accuracy** is defined as the combined error expressed as a percentage of full scale output. Combined error includes linearity (BFSL), hysteresis, and repeatability, as defined in ISA-537.1

[^] **Operating Temp. Range, Diaphragm** refers to the functional limits of the snout tip. Refer to the manual for greater detail on the operating and compensated temperature ranges of the diaphragm tip, flex and electronics.

Ordering Guide





All dimensions are inches (mm) unless otherwise specified.
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