



MOTION SENSORS, INC.

Producing High Quality Solutions Since 1970

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Variable Reluctance Sensors - Premium

For harsh environments and years of reliable service, MSI Premium sensors are your best option. They are hermetically sealed for resistance to moisture and other atmospheric contamination and can withstand repeated thermocycling in temperatures ranging from -450°F to 450°F. MSI Premium sensors are the sensors of choice for use in cryogenics for their ability to operate dependably at extremely low temperatures for long periods of time. The ruggedized version of this type undergo a unique internal construction process that enables them to better tolerate rigorous conditions that would cause other sensors to fail (e.g., excessive vibration, impact, and repeated thermocycling).

Product Specifications

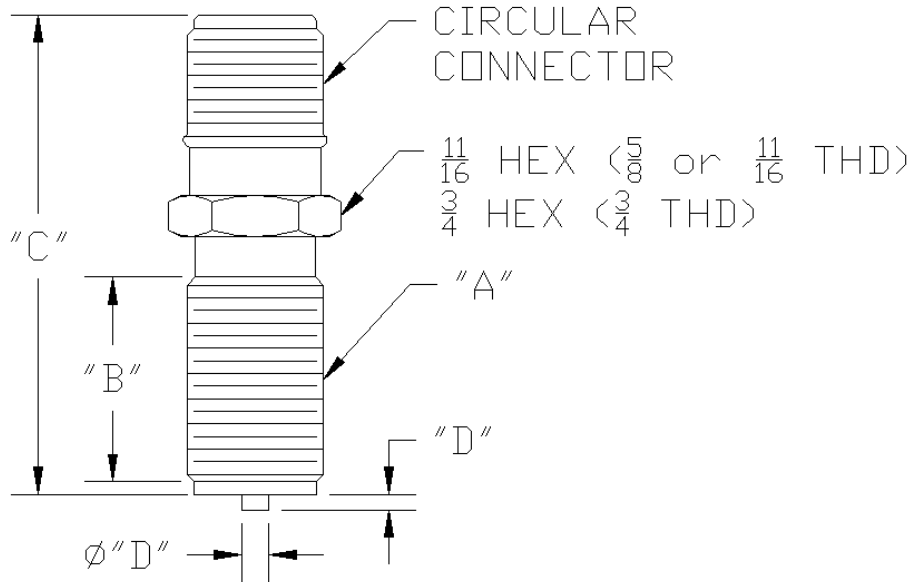
In addition to the models specified, MSI can make custom Premium series VR sensors in other lengths, diameters, configurations, mounting threads (e.g., metric) as well as with different operating specifications and options like pigtail leads, NPT threads for explosion proof applications, etc. to satisfy special requirements. The products listed below are a sampling of our standard grade sensors, and are also available in the ruggedized grade. If you do not see a sensor that meets your needs, please contact us and we would be happy to make a product that meets your specifications.

Standard Features and Specifications

- Available in standard and ruggedized grades
- Variable Reluctance (VR) or inductive type (no internal magnet).
- Hermetically sealed, heli-arc welded construction
- Two (2) pin gold plated glass sealed connector (mates with: MS3106-10SL-4S)
- 300 stainless steel housing (lock-nut included)
- Magnet that resists demagnetization
- Unique potting that compensates for temperature extremes
- Focusing tip (pole piece) which allows greater air gap with no signal loss
- High signal output
- Temperature range: -450°F to +450°F (-270°C to +232°C)
- IR leakage: 100 Mohms @ 100 VDC minimum
- High Shock and Vibration resistance:
Impact: 15 G's (11 mS, 1/2 sine) min.; Vibration: 20 G's at 2,000 Hz min
- Unconditional one (1) year warranty if used within specifications



Dimension Key



Standard VR Models

Model Number	Mounting Thd (A)	Thd Length (B)	Overall Length (C)	Tip (Length/Dia.) (D)	Resistance (ohms)	Inductance (Henry)	Gauss Strength
PC51-1G	5/8x18	1.00	2.212	.031/.100	1200	.54	810
PC13-74G	11/16x24	.563	2.685	.070/.125	1800	1.3	850
PC13-70G	11/16x24	.563	1.975	.070/.125	1800	1.3	850
PC13-106G	3/4x20	1.25	2.685	flush front	1800	1.3	850

Standard Low-drag VR Models

Model Number	Mounting Thd (A)	Thd Length (B)	Overall Length (C)	Tip (Length/Dia.) (D)	Resistance (ohms)	Inductance (Henry)	Gauss Strength
PC55-2G	5/8x18	1.00	2.212	.031/.100	1650	1.4	325
PC24-45G	11/16x24	.563	2.220	.070/.125	1380	1.6	350
PC24-141G	3/4x20	1.25	2.685	flush front	1380	1.6	350

Standard Inductive Models

Model Number	Mounting Thd (A)	Thd Length (B)	Overall Length (C)	Tip (Length/Dia.) (D)	Resistance (ohms)	Inductance (Henry)	Gauss Strength
PC53-1G	5/8x18	1.00	2.212	flush front	5000	15	n/a
PC3-24G	11/16x24	.563	2.220	flush front	5000	15-20	n/a

Notes:

1. Dimensions in inches
2. Specifications +/- 10%
3. Mounting threads UNF-2A