

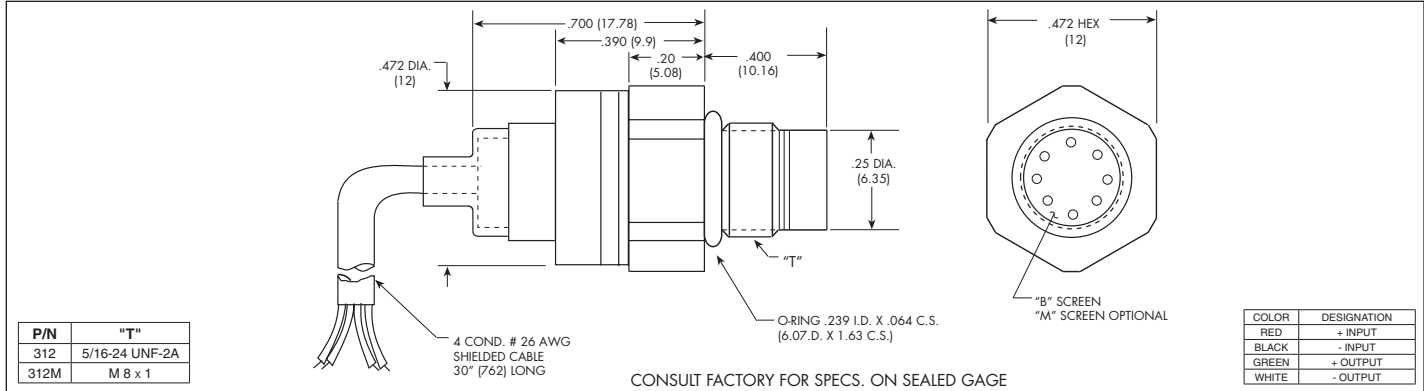


CRYOGENIC MINIATURE RUGGEDIZED IS[®] PRESSURE TRANSDUCER

CTL-312 (M) SERIES

- Cryogenic Operation -320°F to +250°F (-195.5°C to +120°C)
- Low Ranges Available
- Silicon on Silicon Integrated Sensor **VIS[®]**
- Excellent Stability and Repeatability
- High Frequency Response

Similar in design to the HKM-312 Series, these sensors are specifically intended for use in cryogenic wind tunnels. The extremely good low temperature stability of Kulite IS[®] Sensors make them ideally suited for this application.



INPUT	0.35	0.7	1.7	3.5	7	17	35	70	140 BAR
Pressure Range	5	10	25	50	100	250	500	1000	2000 PSI
Operational Mode	Absolute, Gage, Sealed Gage, Differential								
Over Pressure	2 Times Rated Pressure to a Maximum of 3000 PSI (210 BAR)								
Burst Pressure	3 Times Rated Pressure to a Maximum of 3000 PSI (210 BAR)								
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases								
Rated Electrical Excitation	10 VDC/AC								
Maximum Electrical Excitation	15 VDC/AC								
Input Impedance	1000 Ohms (Min.)								
OUTPUT									
Output Impedance	1000 Ohms (Nom.)								
Full Scale Output (FSO)	100 mV (Nom.)								
Residual Unbalance	± 5 mV (Typ.)								
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)								
Resolution	Infinitesimal								
Natural Frequency (KHz) (Typ.)	150	175	240	300	380	550	700	1000	1400
Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	2.0x10 ⁻⁵
Transverse	2.2x10 ⁻⁴	1.4x10 ⁻⁴	6.0x10 ⁻⁵	4.0x10 ⁻⁵	2.0x10 ⁻⁵	9.0x10 ⁻⁶	6.0x10 ⁻⁶	3.0x10 ⁻⁶	2.0x10 ⁻⁶
Insulation Resistance	100 Megohm Min. @ 50 VDC								
ENVIRONMENTAL									
Operating Temperature Range	-320°F to +250°F (-195.5°C to +120°C)								
Compensated Temperature Range	-320°F to +100°F (-195.5°C to +37.5°C)								
Thermal Zero Shift	± 1% FS/100°F (Typ.)								
Thermal Sensitivity Shift	± 1% /100°F (Typ.)								
Linear Vibration	100g Peak, Sine up to 5000 Hz								
Humidity	100% Relative Humidity								
Mechanical Shock	20,000g, 100µ sec.								
PHYSICAL									
Electrical Connection	4 Conductor 26 AWG Shielded Cable 30" Long								
Weight	17 Grams (Max.) Excluding Cable								
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon								
Mounting Torque	50 Inch-Pounds (Max.) 6Nm								

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters.

Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal. (B)