



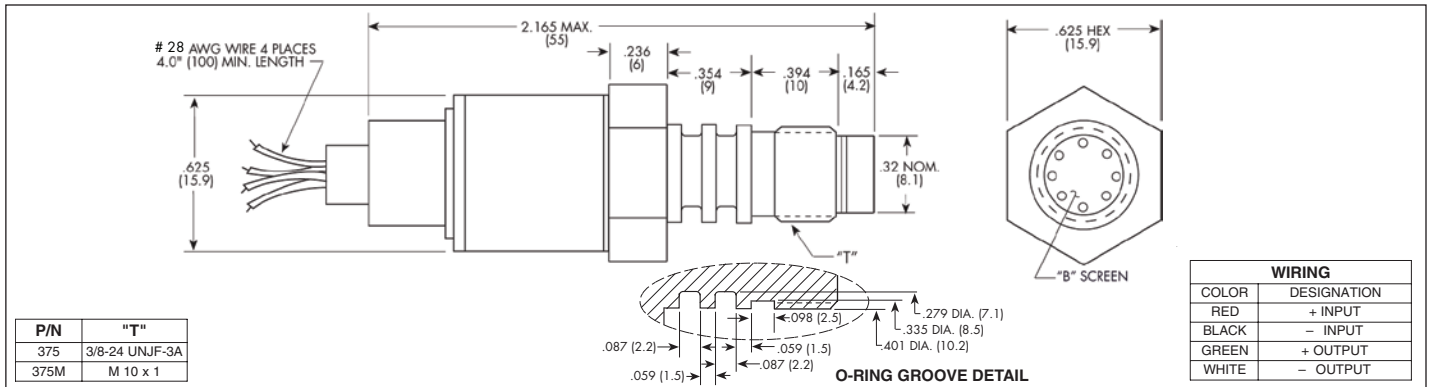
DOWNHOLE MINIATURE PRESSURE TRANSDUCER

HKM-189-375 SERIES HKM-189-375M SERIES (METRIC)

- Excellent Stability
- Robust All Welded Construction
- 3/8-24 UNJF or M10 X 1 Thread
- High Natural Frequencies
- High Pressure Capabilities
- Intrinsically Safe Applications Available (i.e. IS-HKM-189-375)



This miniature high pressure pressure transducer utilizes Kulite's state of the art, Silicon on Silicon Isolated Diaphragm Sensing Technology, to provide excellent long term stability and high accuracy at temperatures to 200°C (392°F). Its rugged, all welded stainless steel housing protects the internal circuitry from well pressure to 86 MPa (12,500 psi). An optional fifth wire will provide a temperature signal directly from the pressure sensing Wheatstone Bridge for the purpose of software correction of that bridge's thermal error.



INPUT Pressure Range (FSP)	21 (3000)	42 (6000)	70 (10000)	105 MPa (15000) (PSI)
Operational Mode	Absolute			
Over Pressure	2 Times FSP to 6000 PSI (42 MPa); 1.5 Times FSP For Higher Pressure Ranges			
Burst Pressure	3 Times Rated Pressure to a Max. of 35000 PSI (240 MPa)			
Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel			
Rated Electrical Excitation	5 VDC			
Maximum Electrical Excitation	7.5 VDC			
Input Impedance	650 Ohms (Min.)			
OUTPUT Output Impedance	1000 Ohms (Nom.)			
Full Scale Output (FSO)	70 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.)	700 KHz			
Insulation Resistance	100 Megohm Min. @ 50 VDC			
ENVIRONMENTAL Operating Temperature Range	-65°F to +392°F (-55°C to +200°C)			
Compensated Temperature Range	77°F to +392°F (25°C to +200°C) (Or Uncompensated, With a Temperature Signal For Software Compensation)			
Thermal Zero Shift	± 1% FS/100°F (± 1.8% FS/212°F (Max.))			
Thermal Sensitivity Shift	± 1%/100°F (± 1.8%/212°F (Max.))			
Linear Vibration	100g Peak, Sine Up to 5000 Hz			
Humidity	100% Relative Humidity			
Mechanical Shock	20,000g, 100µ sec.			
Hydrostatic Pressure	Case Sealed to 86 MPa (12,500 PSI) Hydrostatic			
PHYSICAL Electrical Connection	4 x 28 AWG Leads 100mm (4.0") Long			
Weight	35 Grams (Nom.)			
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon			
Mounting Torque	80 Inch-Pounds (Max.)			

Long Term Stability: ≤ 0.1%/year typical.

Common Mode Voltage: 2.5V ± 100 mV

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. For more information on our products, visit our website at <http://www.sensor-ic.com/> TEL: 0755-83376489 FAX: 0755-83376182 E-MAIL: szss20@163.com