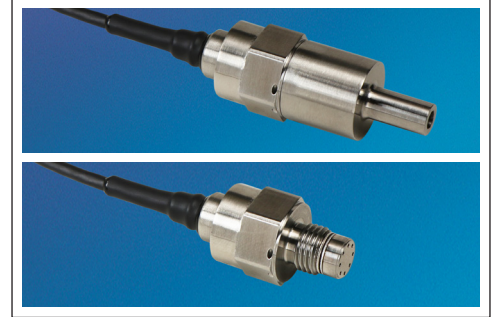




MINIATURE AEROSPACE/SPACE PRESSURE TRANSDUCER

HKM-524-375 (M) SERIES

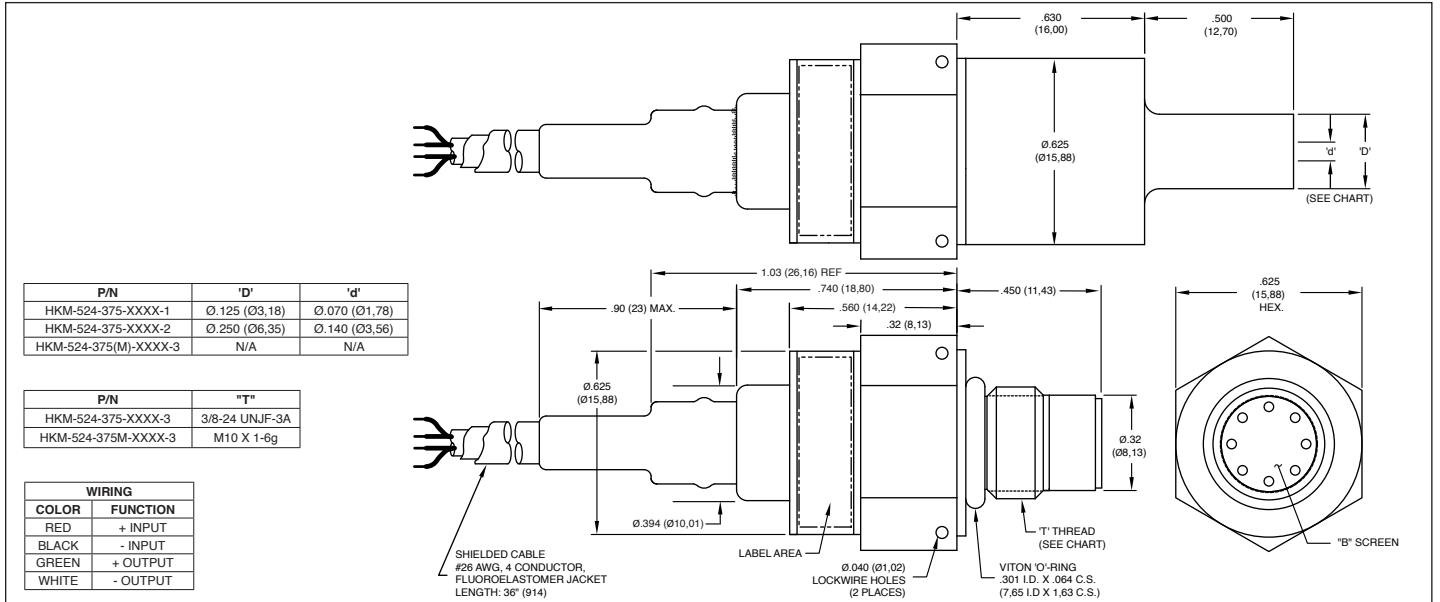
- Excellent Stability
- All Welded Construction
- Silicon on Silicon Integrated Sensor **VIS**[®]
- 3/8-24 UNJF or M10 X 1 Thread
- Optional Weldable Tube Stub
- Intrinsically Safe Applications Available (i.e. IS-HKM-524-375)



The HKM-524-375 (M) is a compact and lightweight pressure transducer which is available with a variety of pressure port options. These include a standard O-ring seal which allows for a simple installation or a weldable tube stub which enables seamless integration into custom systems. This provides secure, leak-free connections even in extreme conditions.

The HKM-524-375 (M) utilizes a flush metal diaphragm as a force collector. A solid state piezoresistive sensing element is located immediately behind this metal diaphragm which is protected by a metal screen. Force transfer is accomplished via an intervening film of noncompressible inert Krytox™ oil. This sensing sub assembly is welded to a 316L stainless steel body.

The HKM-524-375 (M) is constructed with 316L stainless steel for all wetted materials, providing excellent compatibility with a wide variety of pressure media including Helium, Argon, Krypton, Xenon, Hydrazine, NTO, High Test Peroxide and others. This makes the transducer ideal for spacecraft propulsion systems where maintaining material integrity is crucial.



	35	70	140	210	350 BAR
INPUT	500	1000	2000	3000	5000 PSI
Pressure Range					
Operational Mode	Absolute, Sealed Gage				
Over Pressure	2 Times Rated Pressure to a Max. of 10000 PSI (690 BAR)				
Burst Pressure	3 Times Rated Pressure to a Max. of 15000 PSI (1034 BAR)				
Pressure Media	Any Liquid or Gas Compatible with 316L Stainless Steel (All Pressure Media May Not Be Suitable with O-Ring Supplied -3 Only)				
Rated Electrical Excitation	10 VDC				
Maximum Electrical Excitation	12 VDC				
Input Impedance	1000 Ohms (Min.)				
Output Impedance	3000 Ohms (Max.)				
OUTPUT					
Full Scale Output	100 mV				
Residual Unbalance	0 mV				
Resolution	Infinitesimal				
Insulation Resistance	100 Megohm Min. @ 50 VDC				
ENVIRONMENTAL					
Operating Temperature Range	-65°F to +300°F (-55°C to +150°C)				
Compensated Temperature Range	-65°F to +300°F (-55°C to +150°C)				
Total Error Band	± 2% FSO +32°F to 180°F (0°C to +85°C) Increasing to ± 3% At All Other Temperatures Within The Compensated Range				
Linear Vibration	20g Peak, Sine 10 to 2000 Hz				
Altitude	Unaffected				
Humidity	100% Relative Humidity				
Mechanical Shock	20g Half Sine Wave 11 msec. Duration				
Radiation	Radiation Tolerant Up To 100 kRad TID				
PHYSICAL					
Electrical Connection	4 Conductor 26 AWG Shielded, Fluoroelastomer Jacketed Cable, 36" (914)				
Weight	-1 Configuration 0.081 lbs (36.7g) / -2 Configuration 0.085 lbs (38g) Max. / -3 Configuration 0.043 lbs (19.5g) (Excluding Cable)				
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon				
Mounting Torque	80 Inch-Pounds (Max.) (-3 Configuration Only)				

Note: Custom pressure ranges, and accuracies available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2025 Kulite Semiconductor Products, Inc. All Rights Reserved. KULITE SEMICONDUCTOR PRODUCTS, INC. • One Willow Tree Road • Leonia, New Jersey 07605 • Tel: 201 461-0900 • Fax: 201 461-0990 • www.kulite.com