

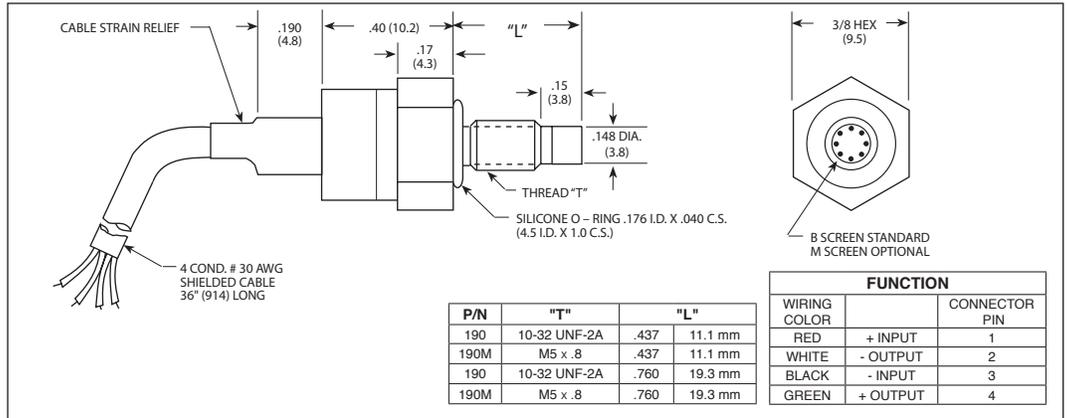
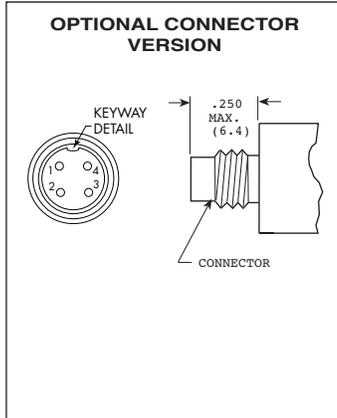


MINIATURE RUGGEDIZED IS® PRESSURE TRANSDUCER

XTL-AC-190 (M) SERIES

- Acceleration/Vibration Insensitive Design VIS²®
- High Natural Frequency
- Easy Installation

The ruggedness of this sensor has not compromised its performance. It was designed for ease of installation and will operate properly in any medium compatible with 15-5 SS or SiO₂. The XTL-AC-190 incorporates the latest Kulite patented and patent pending technologies in pressure sensor development. One of these patented innovative technologies makes the XTL-AC-190 insensitive to acceleration forces.



INPUT	Pressure Range	3.5 50	7 100	17 250	35 500
	Operational Mode	Absolute, Sealed Gage			
	Over Pressure	2 Times Rated Pressure to a Maximum of 3000 PSI (210 BAR)			
	Burst Pressure	3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR)			
	Pressure Media	Most Conductive Liquids or Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied)			
	Rated Electrical Excitation	10 VDC/AC			
	Maximum Electrical Excitation	12 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.)	240	300	380	550
	Acceleration Sensitivity % FS/g Perpendicular Transverse	N/A <<1x10 ⁻⁶			
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC			
	Operating Temperature Range	-65°F to +350°F (-55°C to +175°C)			
	Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request			
	Thermal Zero Shift	± 1% FS/100°F (Typ.)			
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)			
	Steady Acceleration	10,000 g. (Max.)			
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)			
	Electrical Connection	4 Conductor 30 AWG Shielded Cable 36" Long			
	Weight	4 Grams (Nom.) Excluding Cable			
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology			
Mounting Torque	15 Inch-Pounds (Max.)				

Note: 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 (P) without notice. Copyright © 2018 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



MINIATURE RUGGEDIZED PRESSURE TRANSDUCER

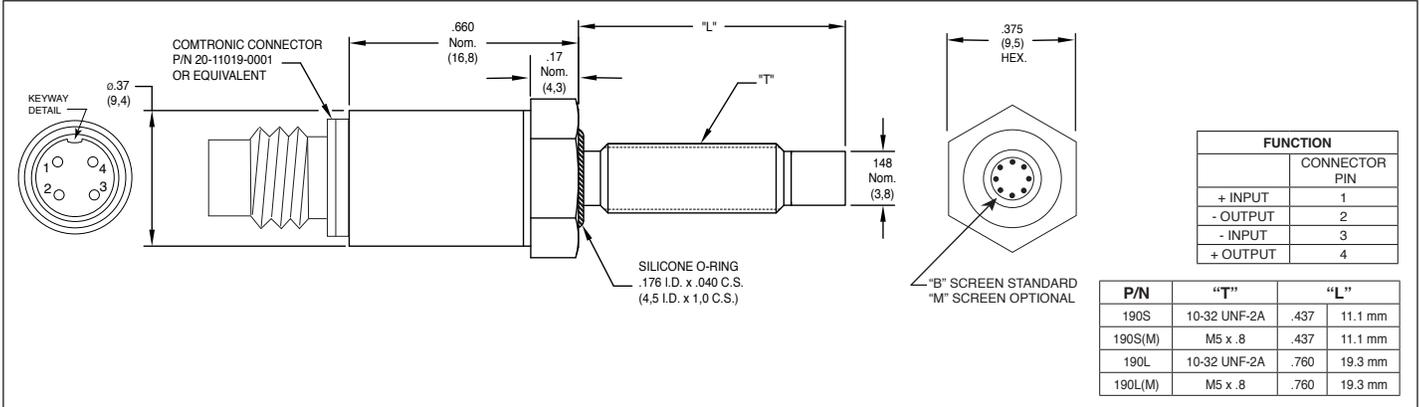
XTL-100-190 (M) SERIES

- Easy Installation
- Patented Leadless Technology VIS®
- High Natural Frequency

The ruggedness of this sensor has not compromised its performance. It was designed for ease of installation and will operate properly in any medium compatible with 15-5 SS or SiO₂. Its Patented Leadless construction makes it possible for the sensing unit to be installed in such a way that will not compromise its high natural frequency. Part performance not guaranteed if used in water.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTL-100-190 transducer.



INPUT	Pressure Range	0.7 10	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	140 BAR 2000 PSI	
	Operational Mode	Absolute		Absolute, Sealed Gage							
	Over Pressure	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR)									
	Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied)									
	Rated Electrical Excitation	10 VDC/AC									
	Maximum Electrical Excitation	12 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 of Sensor Without Screen (KHz) (Typ.)	175	200	240	300	380	550	700	1000	1400	
	Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	2.0x10 ⁻⁵	
	Insulation Resistance	100 Megohm Min. @ 50 VDC									
ENVIRONMENTAL	Operating Temperature Range	-65°F to +350°F (-55°C to +175°C)									
	Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request									
	Thermal Zero Shift	± 1% FS/100°F (Typ.)									
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)									
	Steady Acceleration	10,000g. (Max.)									
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)									
	Electrical Connection	Comtronic Connector P/N 20-11019-0001 or Equivalent (Mating Connector Available Upon Request)									
	Weight	6 Grams (Nom.)									
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology									
Mounting Torque	15 Inch-Pounds (Max.) 1.7 Nm										

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (C) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2020 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



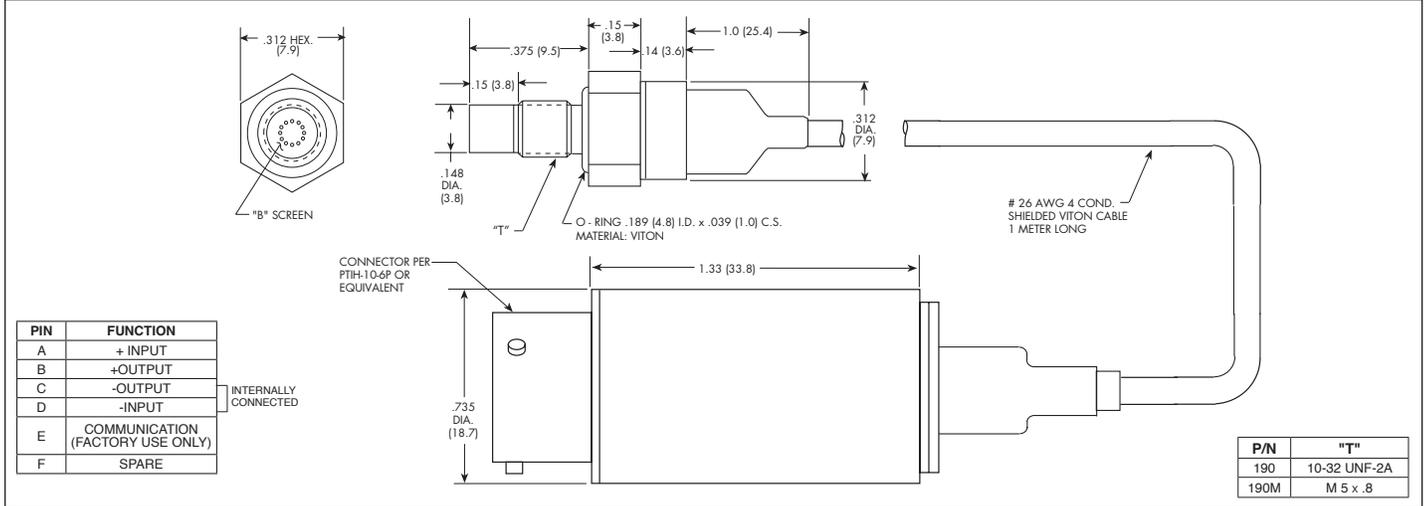
**ULTRA MINIATURE 5 VDC OUTPUT
DIGITALLY CORRECTED RUGGEDIZED
AUTOMOTIVE PRESSURE TRANSDUCER**

XTL-2DC-123BA6-190 (M) SERIES

- Automotive Testing Applications
- Patented Leadless Technology **VIS**[®]
- High Accuracy
- .15% T.E.B. Typical
- Compatible With Most Automotive Fluids



Part performance not guaranteed if used in water.



INPUT	Pressure Range	1.7 25	3.5 50	7 100	17 250	35 BAR 500 PSI
	Operational Mode	Absolute, Sealed Gage				
	Over Pressure	2 Times Rated Pressure to a Max. of 1000 PSI (70 BAR)				
	Burst Pressure	3 Times Rated Pressure to a Max. of 1500 PSI (100 BAR)				
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)				
	Maximum Electrical Current	25 mA (Max.)				
	Rated Electrical Excitation	8 - 32 VDC				
OUTPUT	Output	0 to 5 V				
	Output Impedance	200 Ohms (Typ.)				
	Total Error Band	± 0.3% (Max.) ± 0.15% (Typ.) (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability And All Thermal Effects Included)				
	Resolution	Infinitesimal				
	Bandwidth (KHz)	3.5 KHz				
	Acceleration Sensitivity % FS/g Perpendicular	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵
	Insulation Resistance	100 Megohm Min. @ 50 VDC				
ENVIRONMENTAL	Operating Temperature Range	-40°F to +390°F (-40°C to +200°C) (Viton O-Ring Rated 0°F to +450°F (-18°C to +232°C) Amplifier -40°F to +265°F (-40°C to +130°C)				
	Compensated Temperature Range	32°F to +250°F (0°C to +120°C)				
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz				
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration				
PHYSICAL	Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 1 Meter Long				
	Weight	25 Grams (Nom.) Excluding Cable				
	Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology				
	Mounting Torque	15 Inch-Pounds (Max.)				

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (V) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



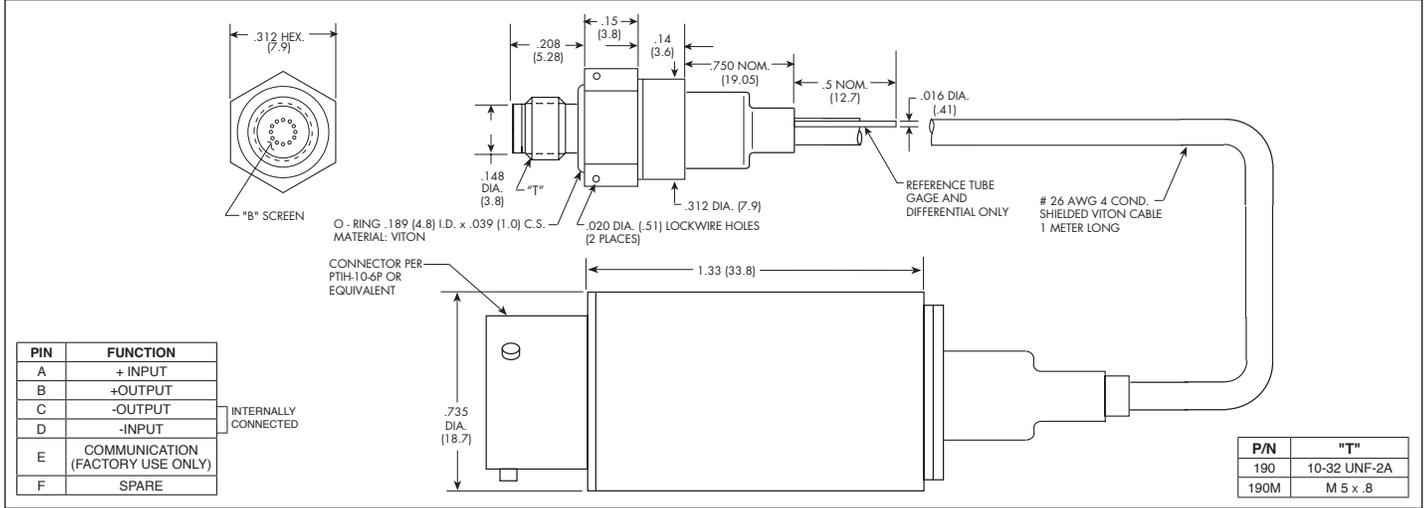
**ULTRA MINIATURE 5 VDC OUTPUT
DIGITALLY CORRECTED RUGGEDIZED
AUTOMOTIVE PRESSURE TRANSDUCER**

XTL-2DC-123GA6-190 (M) SERIES

- Automotive Testing Applications
- Patented Leadless Technology **VIS**[®]
- High Accuracy
- .15% T.E.B. Typical
- Compatible With Most Automotive Fluids



Part performance not guaranteed if used in water.



INPUT	Pressure Range	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	100 1500	210 BAR 3000 PSI	
	Operational Mode	Absolute, Gage, Differential	Absolute, Sealed Gage, Gage, Differential				Absolute, Sealed Gage				
	Over Pressure	2 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)									
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)									
	Maximum Electrical Current	25 mA (Max.)									
	Rated Electrical Excitation	8 - 32 VDC									
OUTPUT	Output	0 to 5 V									
	Output Impedance	200 Ohms (Typ.)									
	Total Error Band	± 0.3% (Max.) ± 0.15% (Typ.) (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability And All Thermal Effects Included)									
	Resolution	Infinitesimal									
	Bandwidth (KHz)	3.5 KHz									
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	3.5x10 ⁻⁵	2.0x10 ⁻⁵	
	Insulation Resistance	100 Megohm Min. @ 50 VDC									
	Operating Temperature Range	-40°F to +390°F (-40°C to +200°C) Amplifier -40°F to +250°F (-40°C to +121°C)									
	Compensated Temperature Range	32°F to +250°F (0°C to +120°C)									
PHYSICAL	Linear Vibration	20g Peak, Sine 10 to 2000 Hz									
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration									
	Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 1 Meter Long									
	Weight	25 Grams (Nom.) Excluding Cable									
Sensing Principle		Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology									
Mounting Torque		15 Inch-Pounds (Max.)									

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (G) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2016 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



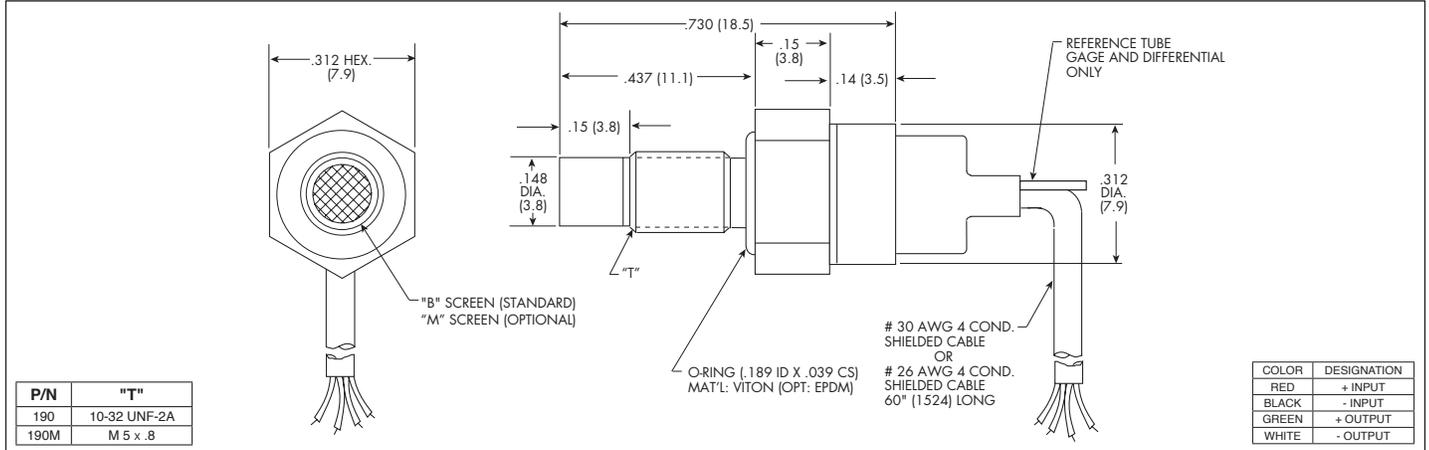
**RUGGEDIZED AUTOMOTIVE
PRESSURE TRANSDUCER
XTL-123A-190 (M) SERIES**

- Easy Installation
- High Natural Frequency
- Patented Leadless Technology **VIS**[®]
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids



Part performance not guaranteed if used in water.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-123A-190 transducer.



INPUT	Pressure Range	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	100 1500	210 BAR 3000 PSI	
	Operational Mode	Absolute, Sealed Gage, Gage, Differential					Absolute, Sealed Gage				
	Over Pressure	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)									
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)									
	Rated Electrical Excitation	10 VDC									
	Maximum Electrical Excitation	12 VDC									
	Input Impedance	1000 Ohms (Min.), 5000 Ohms (Max.)									
OUTPUT	Output Impedance	2000 Ohms (Max.)									
	Full Scale Output (FSO)	100 mV ± 10 mV									
	Residual Unbalance	± 5mV (Typ.)									
	Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)									
	Resolution	Infinitesimal									
	Natural Frequency of Sensor Without Screen (KHz) (Typ.)	Greater Than 175 KHz									
	Acceleration Sensitivity % FS/g Perpendicular	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	3.5x10 ⁻⁵	2.0x10 ⁻⁵	
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC									
	Operating Temperature Range	-65°F to +390°F (-55°C to +200°C)									
	Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)									
	Thermal Zero Shift	± 1% FS/100°F (Typ.)									
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)									
PHYSICAL	Linear Vibration	20g Peak, Sine 10 to 2000 Hz									
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration									
	Electrical Connection	4 Conductor 30 AWG Shielded Cable or 4 Conductor 26 AWG Shielded Cable 60" Long									
	Weight	5 Grams (Nom.) Excluding Cable									
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology										
Mounting Torque	15 Inch-Pounds										

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (O) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



DIFFERENTIAL PRESSURE TRANSDUCER

XTL-3-375 (M) SERIES

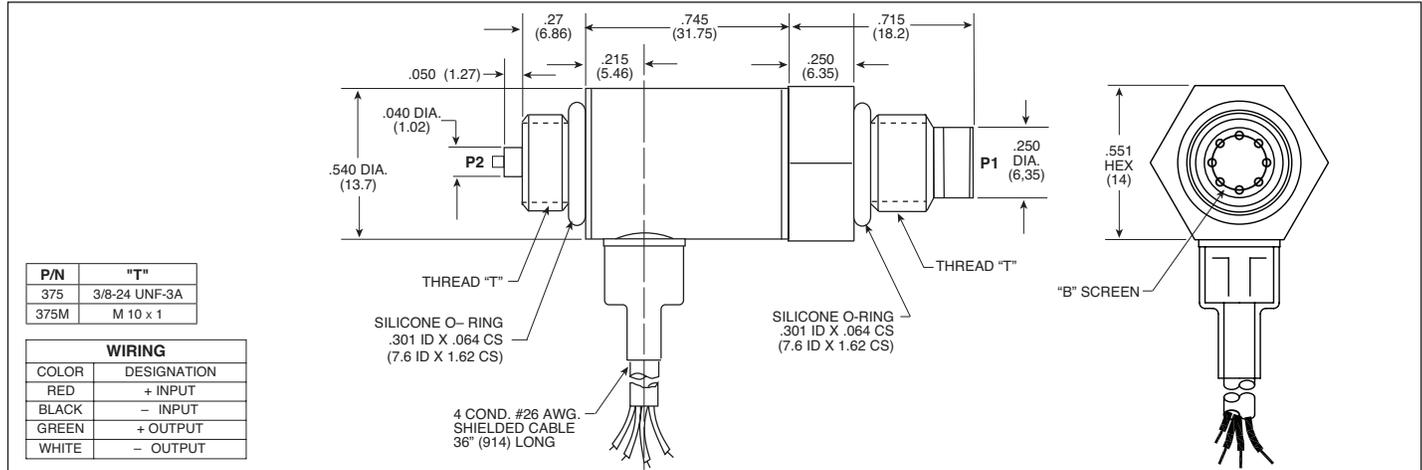
- Robust Construction
- Automotive and Flight Test Applications
- Patented Leadless Technology **VIS**[®]

The XTL-3-375 series is a non-amplified differential transducer. The Kulite patented leadless sensing element is extremely accurate even at low pressures making the XTL-3-375 ideal for low pressure differential measurements in automotive and flight test applications.

Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-3-375 transducer.



INPUT	Pressure Range	0.7 10	1.0 15	1.7 25	3.5 50	5 75	7 100	10 150	14 200	17 250	21 BAR 300 PSI		
	Operational Mode	Differential											
	Over Pressure	2 Times Rated Pressure											
	Burst Pressure	3 Times Rated Pressure											
	Line Pressure	10 Times Rated Pressure (Max.)											
	Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied)											
	Rated Electrical Excitation	10 VDC/AC											
	Maximum Electrical Excitation	12 VDC/AC											
	Input Impedance	1000 Ohms (Min.)											
	Output Impedance	1000 Ohms (Nom.)											
OUTPUT	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 of Sensor Without Screen (KHz) (Typ.)	175	200	240	300	340	380	440	500	550	575		
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻³	3.0x10 ⁻³	2.3x10 ⁻⁴	1.5x10 ⁻⁴	6.4x10 ⁻⁴	1.1x10 ⁻⁴	1.0x10 ⁻⁴	4.0x10 ⁻⁵		
	Insulation Resistance	100 Megohm Min. @ 50 VDC											
	Operating Temperature Range	-65°F to +350°F (-55°C to +175°C) Higher Temperature Ranges Available - Please Consult Factory											
	Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)											
	Thermal Zero Shift	± 1% FS/100°F (Typ.)											
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)											
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)											
	Mechanical Shock	20g half Sine Wave 11μ sec. Duration											
	PHYSICAL	Electrical Connection	4 Conductor 26 AWG Shielded Cable 36" Long										
		Weight	20 Grams (Max.) Excluding Cable										
Pressure Sensing Principle		Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology											
Mounting Torque		80 Inch-Pounds (Max.) 9 Nm											

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (N) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS

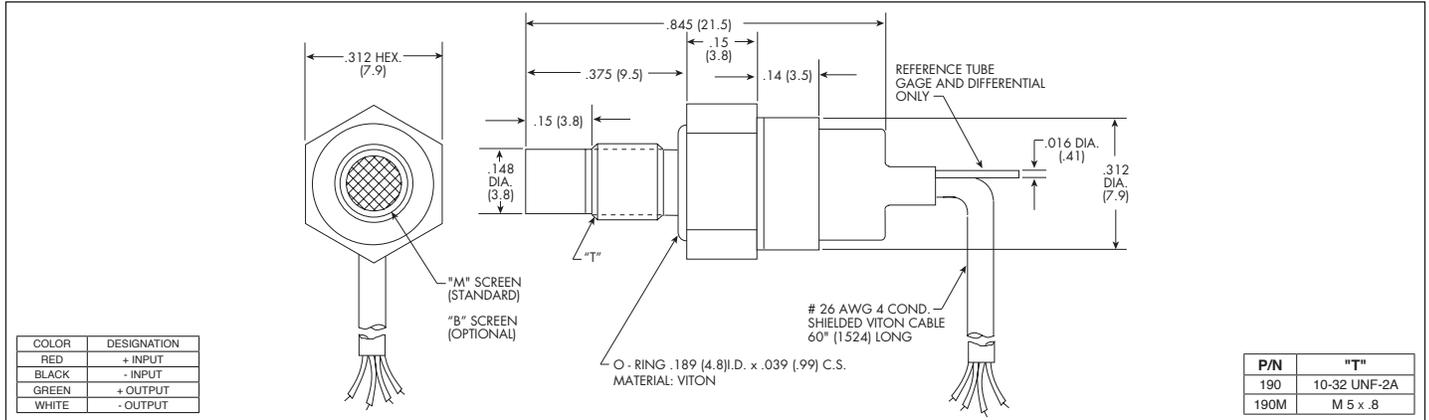
XTL-123B-190 (M) SERIES

- Easy Installation
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- Patented Leadless Technology **VIS**[®]



Part performance not guaranteed if used in water.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-123B-190 transducer.



INPUT	Pressure Range	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	100 1500	210 BAR 3000 PSI		
	Operational Mode	Absolute, Gage, Differential	Absolute, Sealed Gage, Gage, Differential				Absolute, Sealed Gage					
	Over Pressure	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)										
	Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)										
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)										
	Rated Electrical Excitation	10 VDC										
	Maximum Electrical Excitation	12 VDC										
	Input Impedance	1000 Ohms (Min.), 5000 Ohms (Max.)										
OUTPUT	Output Impedance	2000 Ohms (Max.)										
	Full Scale Output (FSO)	100 mV ± 10 mV										
	Residual Unbalance	± 5mV (Typ.)										
	Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)										
	Resolution	Infinitesimal										
	Natural Frequency of Sensor Without Screen (KHz) (Typ.)	Greater Than 175 KHz										
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	3.5x10 ⁻⁵	2.0x10 ⁻⁵		
	Insulation Resistance	100 Megohm Min. @ 50 VDC										
	Operating Temperature Range	-40°F to +390°F (-40°C to +200°C)										
	Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)										
	Thermal Zero Shift	± 1% FS/100°F (Typ.)										
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)										
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz										
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration										
	PHYSICAL	Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 60" Long									
		Weight	5 Grams (Nom.) Excluding Cable									
Pressure Sensing Principle		Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology										
Mounting Torque	15 Inch-Pounds											

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (CC) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS

XTL-HA-123B-190 (M) SERIES

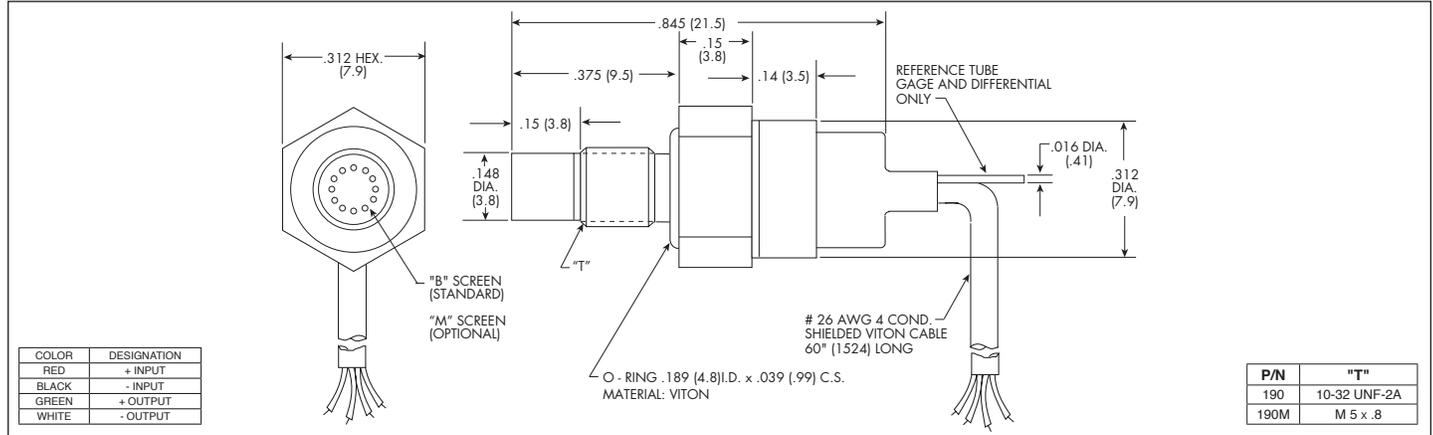
- Easy Installation
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- High Accuracy
- Patented Leadless Technology VIS®

HIGH ACCURACY



Part performance not guaranteed if used in water.

Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTL-HA-123B-190 transducer.



	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	210 BAR 3000 PSI
INPUT	Pressure Range		Operational Mode		Over Pressure		Burst Pressure	
	Absolute, Gage, Differential		Absolute, Sealed Gage, Gage, Differential		Absolute, Sealed Gage			
	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)							
	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)							
	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)							
	10 VDC							
	12 VDC							
	1000 Ohms (Min.), 5000 Ohms (Max.)							
	2000 Ohms (Max.)							
	100 mV ± 10 mV							
	± 5 mV (Typ.)							
OUTPUT	Combined Non-Linearity, Hysteresis and Repeatability							
	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)							
	Infinitesimal							
	Greater Than 175 KHz							
	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	2.0x10 ⁻⁵
	100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Operating Temperature Range							
	-40°F to +350°F (-40°C to +175°C)							
	Compensated Temperature Range							
	-40°F to +350°F (-40°C to +175°C)							
	± 2% FS BFSL, Includes Thermal Sensitivity Shift, Thermal Zero Shift And Static Error Band Over Compensated Temperature Range (Typ.)							
	100g Peak, Sine Up to 5000 Hz							
	100g half Sine Wave 11 msec. Duration							
PHYSICAL	Electrical Connection							
	4 Conductor 26 AWG Shielded Viton Cable 60" Long							
	Weight							
	5 Grams (Nom.) Excluding Cable							
	Pressure Sensing Principle							
	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology							
	Mounting Torque							
	15 Inch-Pounds							

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RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS

XTL-HA-123G-190 (M) SERIES

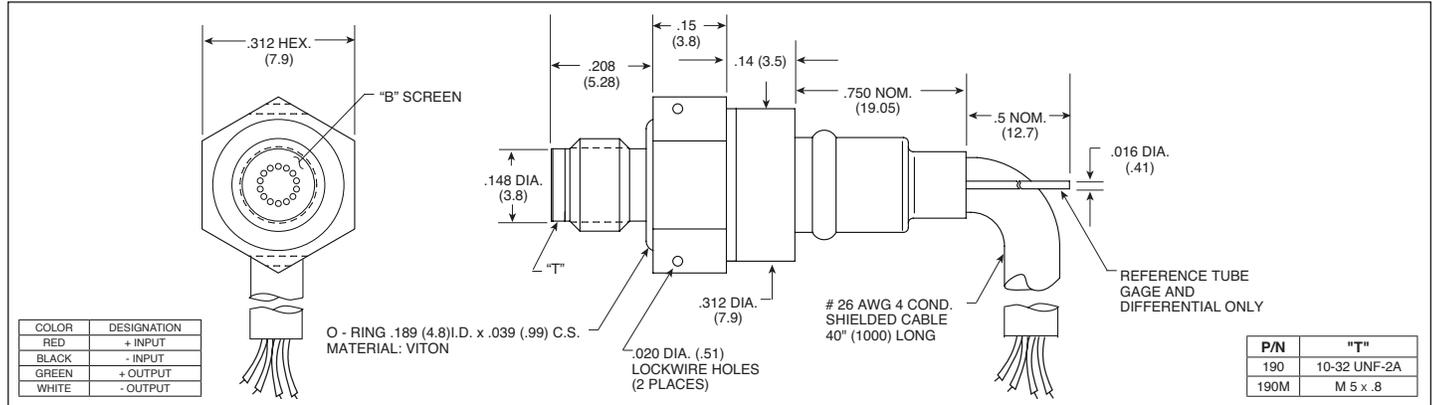
- Easy Installation
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- High Accuracy
- Patented Leadless Technology VIS®

HIGH ACCURACY



Part performance not guaranteed if used in water.

Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTL-HA-123G-190 transducer.



	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	210 BAR 3000 PSI
INPUT								
Pressure Range	Absolute, Gage, Differential		Absolute, Sealed Gage, Gage, Differential			Absolute, Sealed Gage		
Operational Mode	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)							
Over Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)							
Burst Pressure	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)							
Pressure Media	10 VDC							
Rated Electrical Excitation	12 VDC							
Maximum Electrical Excitation	1000 Ohms (Min.), 5000 Ohms (Max.)							
Input Impedance	2000 Ohms (Max.)							
Output Impedance	100 mV ± 10 mV							
Full Scale Output (FSO)	± 5 mV (Typ.)							
Residual Unbalance	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)							
Combined Non-Linearity, Hysteresis and Repeatability	Infinitesimal							
Resolution	Greater Than 175 KHz							
Natural Frequency of Sensor Without Screen (KHz) (Typ.)	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	2.0x10 ⁻⁵
Acceleration Sensitivity % FS/g Perpendicular	100 Megohm Min. @ 50 VDC							
Insulation Resistance	-40°F to +390°F (-40°C to +200°C)				-40°F to +350°F (-40°C to +175°C)			
Operating Temperature Range	± 3% FS BFSL				± 2% FS BFSL			
Compensated Temperature Range	Includes Thermal Sensitivity Shift, Thermal Zero Shift And Static Error Band Over Compensated Temperature Range (Typ.)							
Total Error Band Over Compensated Temperature Range	20g Peak, Sine 10 to 2000 Hz							
Linear Vibration	20g Half Sine Wave 11 msec. Duration							
Mechanical Shock	4 Conductor 26 AWG Shielded Viton Cable 40" (1000) Long							
Electrical Connection	5 Grams (Nom.) Excluding Cable							
Weight	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology							
Pressure Sensing Principle	15 Inch-Pounds							
Mounting Torque								

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (G) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2016 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



SUBMINIATURE PRESSURE TRANSDUCER

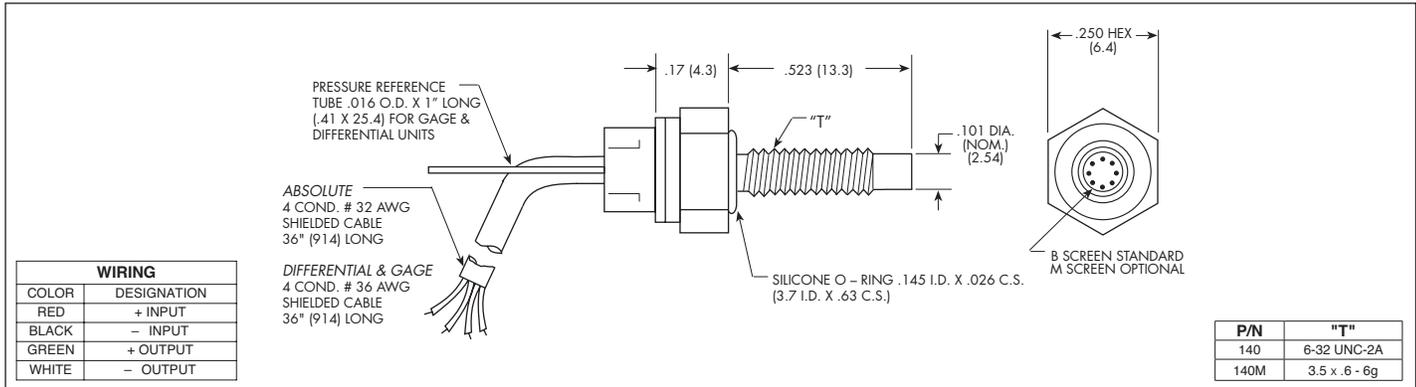
XTL-140 (M) SERIES

- Easy Installation
- Smallest Threaded Device Available
- Patented Leadless Technology **VIS**[®]
- High Natural Frequency
- Suitable For Use in Most Conductive Liquids and Gases

The XTL-140 Series utilizes Kulite's Patented Leadless Technology to obtain extremely high natural frequencies in the smallest thread mount available. Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-140 transducer.



	0.7 10	1.0 15	1.7 25	3.5 50	7 100	17 250	35 BAR 500 PSI
INPUT							
Pressure Range	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential			Absolute, Sealed Gage	
Operational Mode							
Over Pressure	2 Times Rated Pressure						
Burst Pressure	3 Times Rated Pressure						
Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied)						
Rated Electrical Excitation	10 VDC/AC						
Maximum Electrical Excitation	12 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 of Sensor Without Screen (KHz) (Typ.)	175	200	240	300	380	550	700
Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵
Insulation Resistance	100 Megohm Min. @ 50 VDC						
ENVIRONMENTAL							
Operating Temperature Range	-65°F to +350°F (-55°C to +175°C)						
Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request						
Thermal Zero Shift	± 1% FS/100°F (Typ.)						
Thermal Sensitivity Shift	± 1% /100°F (Typ.)						
Steady Acceleration	10,000 g. (Max.)						
Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)						
PHYSICAL							
Electrical Connection	Absolute (4 Conductor 32 AWG Cable 36" Long) Differential and Gage (4 Conductor 36 AWG Cable 36" Long)						
Weight	3 Grams (Nom.) Excluding Cable						
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology						
Mounting Torque	15 Inch-Pounds (Max.) 1.7 Nm						

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (O) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS

XTL-HA-142B-190 (M) SERIES

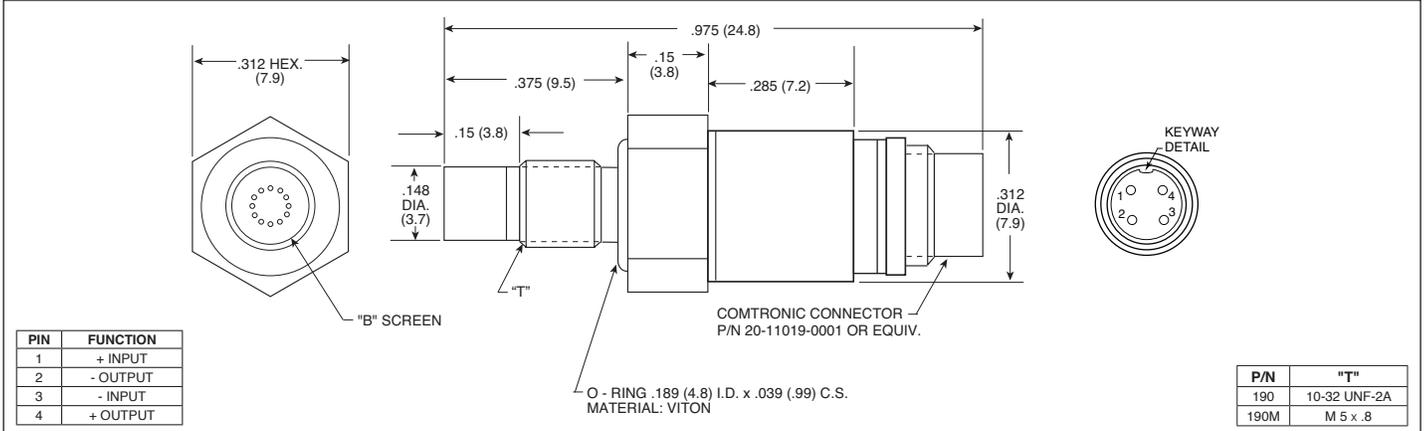
- Easy Installation With Integral Connector
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- High Accuracy
- Patented Leadless Technology **VIS**[®]

HIGH ACCURACY



Part performance not guaranteed if used in water.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-HA-142B-190 transducer.



	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	140 2000	210 BAR 3000 PSI
INPUT									
Pressure Range	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	140 2000	210 BAR 3000 PSI
Operational Mode	Absolute		Absolute, Sealed Gage						
Over Pressure	2 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)								
Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)								
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)								
Rated Electrical Excitation	10 VDC								
Maximum Electrical Excitation	12 VDC								
Input Impedance	2000 Ohms (Min.), 5000 Ohms (Max.)								
OUTPUT									
Output Impedance	2000 Ohms (Max.)								
Full Scale Output (FSO)	100 mV (Min.)								
Residual Unbalance	± 5 mV (Typ.)								
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.3% FSO (Max.)								
Resolution	Infinitesimal								
Natural Frequency of Sensor Without Screen (KHz) (Typ.)	Greater Than 175 KHz								
Acceleration Sensitivity % FS/g Perpendicular	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	2.0x10 ⁻⁵	2.0x10 ⁻⁵
Insulation Resistance	100 Megohm Min. @ 50 VDC								
ENVIRONMENTAL									
Operating Temperature Range	-65°F to +390°F (-55°C to +200°C)								
Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)								
Total Error Band Over Compensated Temperature Range, BFSL	± 2% FS, Includes Thermal Sensitivity Shift, Thermal Zero Shift And Static Error Band Over Compensated Temperature Range (Typ.)								
Linear Vibration	20g Peak, Sine 10 to 2000 Hz								
Mechanical Shock	20g Half Sine Wave 11 msec. Duration								
PHYSICAL									
Electrical Connection	Comtronic Connector P/N 20-11019-0001 or Equivalent (Mating Connector Available Upon Request)								
Weight	5 Grams (Nom.)								
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								
Mounting Torque	15 Inch-Pounds								

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (P) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.