

Type 8732A500, 8734A500

8732A & 8734A MICRO K-SHEAR® ACCELEROMETERS

The 8732A500 and 8734A500 micro K-Shear accelerometers offer the user a small, lightweight, low profile accelerometer designed for measuring shock and vibration on very small articles. The rectangular body shape of the 8732A500 allows for easy adhesive mounting on

any side particularly in tight locations. The mounting flanges of the 8734A500 Accelerometer allow for rigid mounting with fastener during shock testing and its automotive industry standard "footprint" makes it ideal for automotive testing. The hard anodized case is

Continued

- Low impedance voltage mode
- Quartz shear element
- Low profile and lightweight
- Ultra-low base strain and thermal transient response
- Ground isolated
- Standard automotive footprint & mounting
- Conforming to CE



Technical Data	Units	8732A500 8734A500
Acceleration Range	<i>g</i>	± 500
Acceleration Limit	<i>g</i> _{pk}	± 1000
Threshold	<i>g</i> _{rms}	0.01
Sensitivity ±10%	mV/ <i>g</i>	10
Resonant Frequency nom. mounted	kHz	76
Frequency Response ± 5%	Hz	2 ... 7000
	Hz	1 ... 15000
Amplitude Non-linearity	%	± 1
Time Constant nom.	s	0.5
Transverse Sensitivity typ. (max.)	%	1.5 (5)
Base Strain Sensitivity @ 250 µε	<i>g</i> /µε	0.04
Shock (1 ms pulse), max.	<i>g</i> _{pk}	5000
Coefficient of Sensitivity	%/°F	-0.03
	%/°C	-0.06
Temperature Range Operating (4 mA supply current)	°F	-65 ... 250
	°C	-55 ... 120
Storage	°F	-106 ... 300
	°C	-74 ... 150
Output		
Bias nom.	VDC	11
Impedance	Ω	<100
Current	mA	2
Voltage F.S. nom.	V	± 5
Source		
Voltage	VDC	20 ... 30
Constant Current	mA	2 ... 20
Impedance	kΩ	>100
Construction		
Sensing Element	type	shear/quartz
Housing	material	aluminum/titanium
Seal	type	epoxy
Ground Isolation	MΩ	10
Weight	g	1.2
Mounting (8732A500)	type	adhesive/wax
	(8734A500)	type

1 *g* = 9.80665 m/s², 1 inch = 25.4 mm, 1 gram = 0.03527 oz

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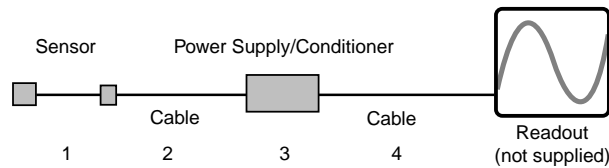
constructed of titanium and aluminum that provides ground isolation and a lightweight package. An integral Teflon jacketed cable, 6 ft. in length, is terminated in a 10-32 negative connector.

Kistler's K-SHEAR technology assures insensitivity to base strain, thermal transients and transverse (cross-axis) acceleration. Quartz sensing elements afford excellent long-term stability to ensure repeatable, accurate measurements for many years. The Piezotron® low impedance voltage output eliminates noise sensitivity to cable motion. Power the Micro K-SHEAR accelerometers with one of Kistler's couplers, signal conditioners, or from built-in ICP compatible power sources found in many measurement and analysis instruments.

Applications

The lightweight, low profile and small size of both Micro K-SHEAR units make them ideal for precision vibration measurements or modal analysis on small, thin-walled structures or where space is limited. The footprint of the 8734A is compatible with the automotive standard, ensuring mechanical compatibility. The 8732A can be used in place of piezoresistive accelerometers (when measuring dynamic acceleration) to obtain a higher output signal and improved thermal performance. Changes in dynamic response of the test article due to accelerometer mass loading are minimized by these lightweight sensors.

Ordering Information

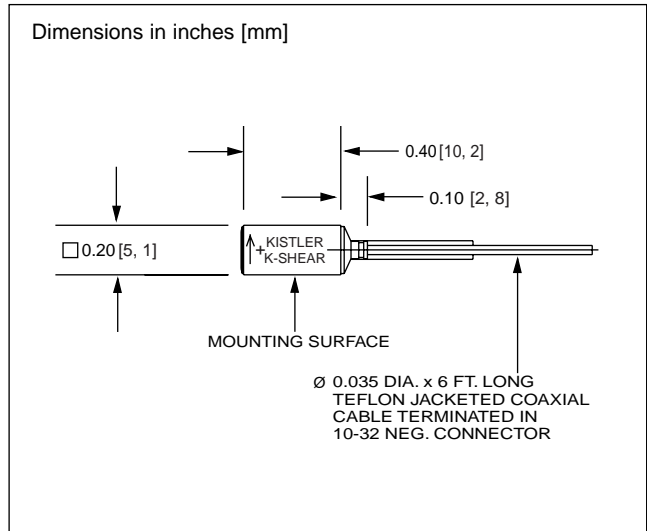


Specify:

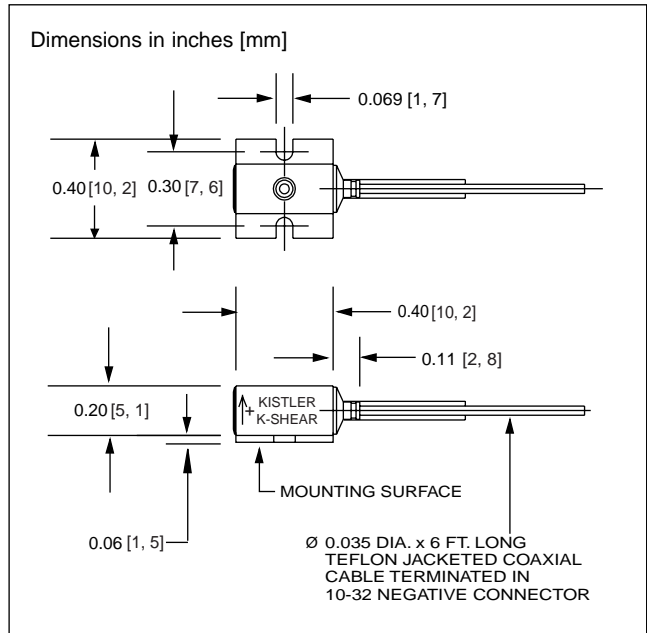
- 1 - 8732A500 K-SHEAR accelerometer or 8734A500 K-SHEAR accelerometer
- 2 - 1761B... sensor cable, 10-32 pos. to BNC pos., specify length in meters
- 3 - 5100... coupler series or dual mode amplifier
- 4 - 1511... cable BNC pos. to BNC pos., specify length in meters

Supplied Accessory

- 8432 mounting wax



Type 8732A500



Type 8734A500

000-249e-09.02 (DBK8.8732/34e)