

Type 8630C5...C50, 8636C5...C50

## 8630C & 8636C PiezoBEAM® ACCELEROMETERS

The 8630C accelerometers meet requirements for modal analysis. The lightweight, five gram design reduces mass loading on light structures, especially when multiple units are used. This sensor features high sensitivity and high thermal rejection.

Type 8630 accelerometers are housed in a hard anodized, environmentally sealed housing. The finish provides ground isolation as well as environmental protection. Type 8630C can be conveniently mounted with adhesive, while the 8636C is designed for stud mounting. The patented PiezoBEAM® design features outstanding

phase response as well as wide frequency range. The sensor is available in three ranges with sensitivities as high as 1000mV/g.

The built-in charge amplifier provides a low impedance voltage output, allowing use of low cost, standard cabling. These sensors will operate directly from the internal power source, available in most FFT analyzers or from Kistler's large selection of power supply couplers. The sensor can be connected with a common coaxial cable such as Type 1761B...

- Low impedance, voltage mode
- High sensitivity
- Very low noise, dynamic range >90dB
- Small transverse sensitivity
- Ground-isolated
- Conforming to CE



Technical Data	Units	8630C5	8630C10	8630C50
		8636C5	8636C10	8636C50
<b>Acceleration Range</b>	<i>g</i>	±5	±10	±50
<b>Acceleration Limit</b>	<i>g</i> <sub>pk</sub>	±8	±16	±80
<b>Threshold</b> nom.	<i>μg</i> <sub>rms</sub>	120	280	1000
	<i>μV</i> <sub>rms</sub>	120	140	100
<b>Sensitivity</b> ± 5 % (at 100 Hz, 3 <i>g</i> <sub>rms</sub> )	mV/ <i>g</i>	1000	500	100
<b>Resonant Frequency</b> mounted, nom.	kHz	9	22	22
<b>Frequency Response</b> ± 5%	Hz	1 ... 3000	1 ... 5000	1 ... 6000
<b>Phase Shift</b> , < 5°	Hz	4 ... 2000	4 ... 2000	4 ... 4000
<b>Amplitude Non-linearity</b>	%FSO	1	1	1
<b>Time Constant</b> nom.	s	1	1	1
<b>Transverse Sensitivity</b>	%	<1	<1	<1
<b>Environmental:</b>				
<b>Base Strain Sensitivity</b> (for 8630) @ 250 <i>με</i>	<i>g/με</i>	< 0.001	< 0.001	< 0.001
(for 8636) @ 250 <i>με</i>	<i>g/με</i>	< 0.004	< 0.004	< 0.004
<b>Shock Limit</b> (0.2 ms pulse width)	<i>g</i> <sub>pk</sub>	7000	10000	10000
<b>Temperature Coefficient of Sensitivity</b>	%/°F	- 0.02	+0.04	+0.04
	%/°C	- 0.04	+ 0.08	+ 0.08
<b>Temperature Range Operating</b> (4 mA supply current)	°F		32 ... 150	
	°C		0 ... 65	
<b>Storage</b>	°F		-10 ... 200	
	°C		- 25 ... 95	
<b>Output:</b>				
<b>Bias</b> nom.	VDC		11	
<b>Impedance</b>	Ω		<500	
<b>Voltage</b> full scale	V		±5	
<b>Current</b>	mA		2	

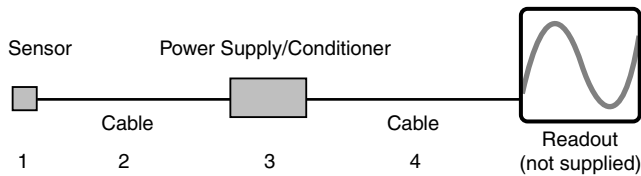
1 *g* = 9.80665 m/s<sup>2</sup>, 1 inch = 25.4 mm, 1 gram = 0.03527 oz, 1 lbf-in = 0.1129 Nm

Technical Data	Units	8630/36...
<b>Source:</b>		
Constant Current	mA	2 ... 20
Voltage	VDC	20 ... 30
<b>Construction:</b>		
Sensing Element	type	ceramic bi-morph bender
Housing/Base	material	Al, hard anodized
Sealing-housing/connector	type	Epoxy
Connector	type	10-32 neg.
Ground Isolation	MΩ	10
Weight	grams	5
Mounting Torque		
for 8636 series	in-lbf (Nm)	8.8 (1,0)

### Applications

Low weight, small size and high sensitivity make the PiezoBEAM accelerometer ideally suited for very low frequency measurement applications, investigations of vibrations, and oscillations in mechanical structures and for modal analysis.

### Ordering Information



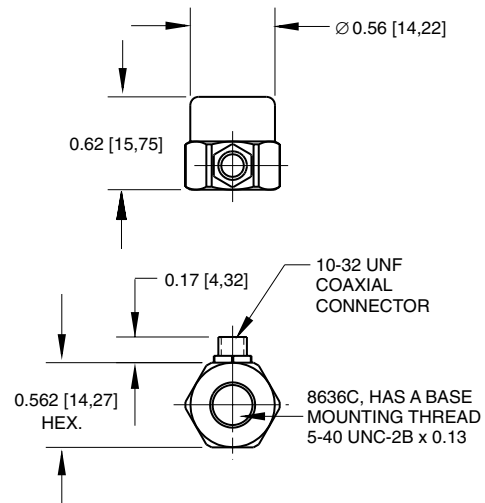
Specify:

- 1 - 8630C... adhesive mount accelerometer or 8636C... 5/40 stud mount accelerometer, specify range
- 2 - 1761B... general purpose connecting cable, 10-32 pos. to BNC pos. specify length in meters
- 3 - 5100 coupler series, or 5134 four-channel coupler
- 4 - 1511... output cable, BNC pos. to BNC pos., optional, specify length in meters

### Related Products

- 8632C single axis cube series
- 8690CM9 triaxial accelerometer with large color-coded axis identification
- 8692C triaxial accelerometer series
- 97... impulse force hammer series

Dimensions in inches [mm]



### Supplied Accessories

- 8432 mounting wax for 8630C and 8636C series
- 8420 5-40 UNC mounting stud for 8636C series
- 8418 5-40 UNC to M6 mounting stud for 8636C, shipped only outside N.A.

### Optional Accessories

- 8434 adhesive mounting pad
- 8450A mounting magnet for 8636C

For a complete list of accessories, request data sheet 9.012.