

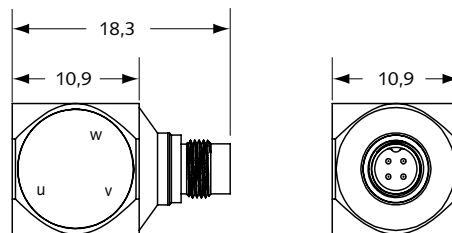
Ceramic Shear

Type 8763A...

Voltage Mode Triaxial Accelerometer

The 8763A... triaxial accelerometer measures shock and vibration in three orthogonal axes. This 0,4 inch cube accelerometer, has a $\pm 500g$ measuring range and weighs under 5 grams.

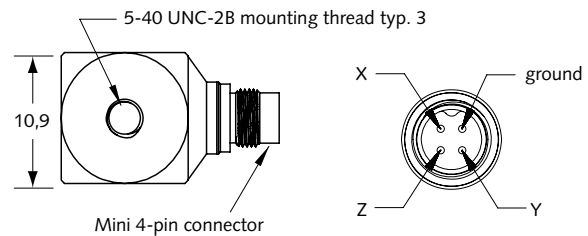
- Cube design, Light weight
- (3) 5-40 threaded holes
- Mini 4-pin connector
- High immunity to thermal transients
- Low base strain sensitivity
- Low impedance voltage output
- Ceramic Shear sensing element
- Conforming to CE



Description

The 8763A... is a IEPE triaxial accelerometer permitting simultaneous shock and vibration measurements in three mutually perpendicular axes: X, Y and Z.

The 8763A... uses Kistler shear element technology assuring high immunity to base strain and thermal transients. The welded titanium construction provides a lightweight hermetic housing. The miniature 4-pin ceramic insulated connector provides long-term stability over the operating temperature range. In addition to adhesive mounting, the 8763A... has three 5-40 threaded holes for flexible stud mounting on a test object, fully utilizing the each mounting side of the cube design. In addition, the three threaded holes provide reliable mounting for calibration of each orthogonal axis.



Application

The 8763A... provides wide frequency response in each axis, which is ideal for dynamic vibration and shock measurement especially for lightweight structures and drop testing for the packaging industry. Kistler Type 1784A(X)K03 is a mini 4-pin to 3x BNC breakout cable. In addition, the new Kistler mini 4-pin sensor connector can also be adapted for use with traditional 4-pin Microtech compatible cables, using Kistler Type 1784AK02 extension cable.

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Technical Data

Type	Units	8763A500
Acceleration Range	g	±500
Acceleration Limit	g _{pk}	±1000
Threshold nom. (noise μ Vrms)	g _{rms}	0,018 (180)
Sensitivity, ±10%	mV/g	10
Resonant Frequency mounted, nom.	kHz	55
Frequency Response, ±5%	Hz	1 ... 12000
Amplitude Non-linearity	%FSO	±1
Time Constant nom.	s	≥ 0,5
Transverse Sensitivity nom., (max. 5)	%	2,5
Environmental:		
Base Strain Sensitivity @ 250 $\mu\epsilon$	g/ $\mu\epsilon$	0,002
Shock Limit (1ms pulse width)	g _{pk}	5000
Temperature Coefficient of Sensitivity	%/°C	-0,270
Temperature Range Operating	°C	-55 ... 120
Output:		
Bias nom.	VDC	11
Impedance	Ω	≤100
Voltage full scale	V	±5
Source:		
Voltage	VDC	18 ... 30
Constant Current	mA	2 ... 20
Construction:		
Sensing Element	type	Ceramic Shear
Housing/Base	material	Titanium
Sealing-housing/connector	type	Hermetic
Connector	type	Mini 4-pin pos.
Weight	grams	3,3
Mounting	type	5-40 UNC-2B
Mounting Torque	Nm	1

1 g = 9,80665 m/s², 1 inch = 25,4 mm, 1 gram = 0,03527 oz, 1 lbf-in = 0,1129 Nm

Mounting

Reliable and accurate measurements require that the mounting surface be clean and flat. The sensor can be attached to the structure with wax or adhesive or using the supplied adaptor screw. The Operating Instruction Manual for the 8763A... provides detailed information regarding mounting surface preparation.

Accessories Included

	Type
• mounting wax	8432
• screw mounting adaptor	8416

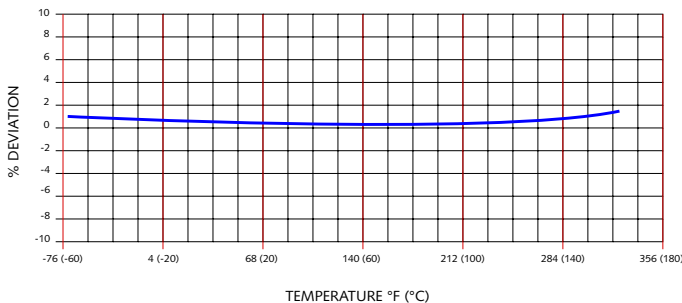
Optional Accessories

	Type
• cable, break out, 4-pin Microtech neg., to 3x BNC pos.	1756Bsp
• mini 4-pin neg to 4-pin Microtech pos., 0,5 meter	1784AK02

Ordering Key

Measuring Range	8763A
±500g	500

Typical Temperature Response



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