



Piezoresistive Accelerometer



ASC 67C1A

Uniaxial
Signal Amplified („A")
Temperature Compensated
Very Small Size
High Frequency Response



Features

- Ranges 500 g, 1,000g, 2000 g
- Very Small Size
- Very Light Weight
- Frequency Response starting at 0 Hz
- High Shock Resistant
- Gas Damped

Options

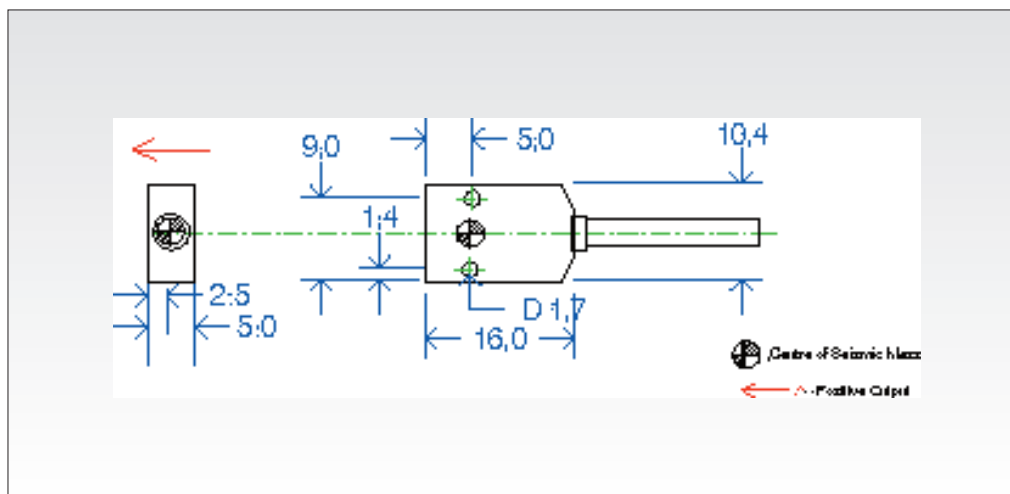
- Customised Cable Length
- Customised Connector
- ASC-Teds Module
- Dallas ID Module

Applications

- Crash Testing
- Automotive Comfort Testing
- Flutter Tsting
- Modal Analysis

Piezoresistive MEMS Technology

The accelerometers are based on an advanced piezoresistive MEMS technology and can be used in a low frequency response up from 0 Hz. The piezoresistive sensor element is made of monolithic resistors. These resistors are attached to carrier-elements and electrically connected in a Wheatstone bridge. The electrical signal changes proportional to introduced vibration.



Description

The model **ASC 67C1A** is a **signal amplified**, uniaxial accelerometer based on piezoresistive technology and factory calibrated. The **ASC 67C1A** is a small and compact accelerometer which meets the **specification SAE J211**. Its housing is a flat design and hard anodized aluminum. Due to its low mass this model is ideal for testing light weight structures.

The sensing element has integrated overload stops and therefore the silicon chip is highly shock resistant. The **ASC 67C1A** has an excellent non-linearity over a wide frequency response. Electrically it is configured as a Wheatstone Bridge.

The **ASC 67C1A** can be obtained with all common sensor ID modules. A very high flexible and rugged cable provides a simple mounting. It is equipped as standard with 6 m of this cable.

General Technical Data

Supply Voltage	8V to 16VDC
Sensitivity	1mV to 4mVDC
Zero Measurement Output	+/- 25mVDC typ
Damping Ratio	0.7 typ
Transverse Sensitivity	<3%
Recovery Time	0.5sec.
Operating Temperature	-20° C to 80° C
Storage Temperature	-25° C to 100° C

Individual Technical Data

	Sensitivity	Frequency +/- 5%	Shock limit
Range 500g	4 mV/g	3,000 Hz	5000g
Range 1000g	2 mV/g	4,000 Hz	5000g
Range 2000g	1 mV/g	4,000 Hz	5000g

At 10 VDC Supply and 25° C

	Weight	Material	Dimensions
Housing	1.5 gram	Aluminium, hard anodized	16.0 x 10.4 x 5.0 mm
Cable 4 wire shielded, AWG 36	6 gram/meter	Polyuithan (PU)	diameter 2.2 mm

Cable Code:

Red	Excitation +	Green	Signal +
Black	Excitation -	White	Signal -

Calibration

- Pendulum Calibration
- Sinusoidal Calibration

Calibration Data incl.:

- Sensitivity
- Frequency
- Offset
- Phase

Order Information

ASC 67C1A-XXX-6XX

1 2 3 4

- 1 Model: ASC 67C1A
- 2 Range: e.g. 1k is 1,000g
- 3 Cable: Length in Meter
- 4 Connector and Pinout/
„A” is for no connector

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