



## Piezoresistive Accelerometer



# ASC 67C1

Uniaxial  
Wheatstone Bridge  
mV Output  
Small Size  
Specification SAE J211  
Aluminium Package



### Features

- Ranges 500g, 1000g, 2000g
- very small size
- very light weight
- Frequency Response starting at 0 Hz
- High Shock Resistant
- Gas Damped

### Options

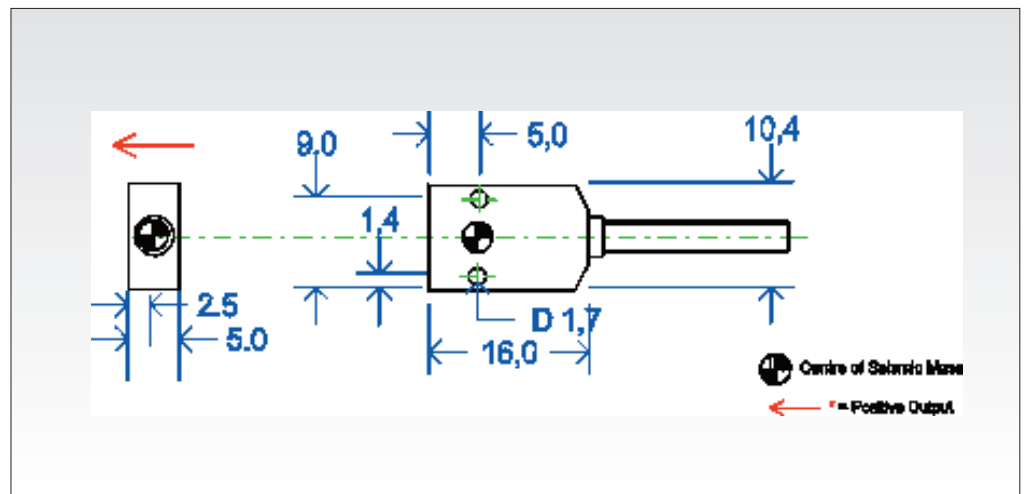
- Customised cable length
- Customised plug connector
- Dallas ID Module
- ASC-Teds Module

### Applications

- Crash Testing
- Automotive Comfort Testing
- Flutter Testing
- 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 67C1** is an uniaxial accelerometer based on piezoresistive technology and factory calibrated. The **ASC 67C1** 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 67C1** has an excellent non-linearity over a wide frequency response. Electrically it is configured as a Wheatstone Bridge.

The **ASC 67C1** can be obtained with all common sensor ID modules. A very high flexible and rugged cable provides a simple mounting. The **ASC 67C1** is equipped as standard with 6 m of this cable.

## General Technical Data

Supply Voltage	2 to 12 VDC
Sensitivity	0.4 mV/g to 0.15 mV/g
Zero Measurand Output	+/- 25 mV typ
Damping Ratio	0.7 typ.
Transvers Sensitivity Typ.	<3%
Recovery Time	< 0.5sec.
Calibration Data	Sensitivity in mV/g
Zero Measurand	Output in mV/g
Operating Temperature	-20° C to 80° C
Storage Temperature	-25° C to 100° C

## Individual Technical Data

	Sensitivity	Frequency +/- 5%	Shock limit
Range 500g	0.4 mV/g	3000 Hz	4000g
Range 1000g	0.15 mV/g	4000 Hz	5000g
Range 2000g	0.15 mV/g	4000 Hz	5000g

At 10 VDC Supply and 25° C

	Weight	Material	Dimensions
<b>Housing</b>	1.5 gram	Aluminium, hard anodized	16.0 x 10.4 x 5.0 mm
<b>Cable</b>			
4 wire shielded,	8 gram/meter	AWG 30, Polyurethane (PUR)	diameter 3.0 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 67C1-XXX-6XX

1 2 3 4

- 1 Model 67C1
- 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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