

ASC 76C1

- Triaxial
- Wheatstone Bridge
- mV Output
- Specification SAE J211
- Aluminum Package
- Cube Form

Features

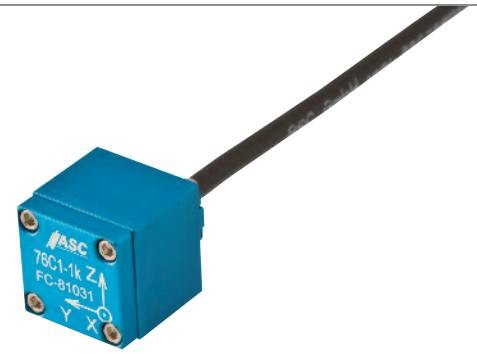
- Range 500g, 1000g, 2000g
- Small Size
- Light Weight
- Frequency Response starting at 0 Hz
- High Shock Resistant
- Gas Damped

Options

- Customized cable length
- Customized connector
- Dallas ID Module
- ASC-Teds Module
- Shunt Resistor

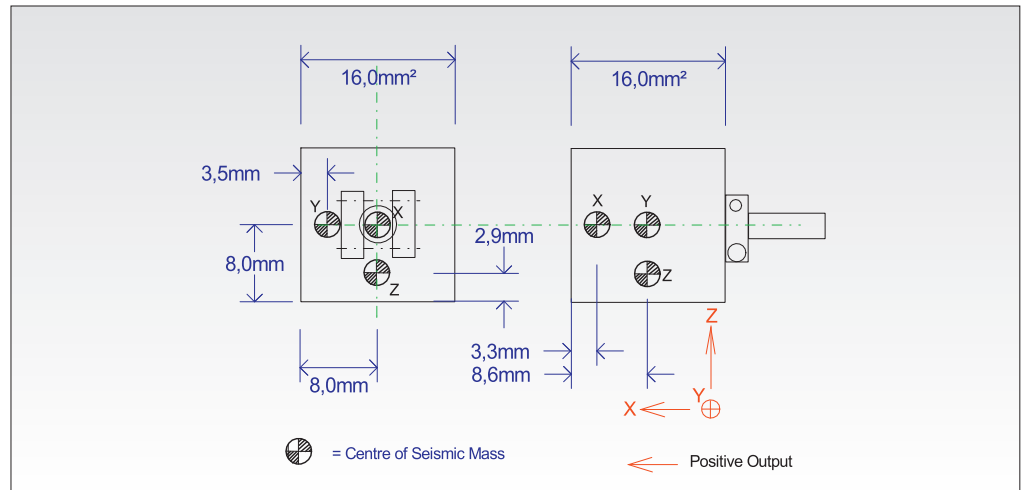
Applications

- Automotive Comfort Testing
- Crash Testing
- Flutter Testing
- Truck Testing



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 76C1** is a triaxial accelerometer based on piezoresistive technology and factory calibrated. It is specially designed for crash test applications. Each sensing element of the sensor is separately replaceable. The **ASC 76C1** works in a full bridge configuration and meets the **SAE J211 specification**. The axes work independently in an aluminum housing.

All three axes meet their positive direction in the centre of the sensor housing. The sensor housing has a very small and compact cube form and can be mounted on different sites. The silicon sensing element has mechanical overload stops and therefore the chip is highly shock resistant. As a standard the model **ASC 76C1** has a very rugged Polyurethanes Cable with 6m length.

General Technical Data

Supply Voltage	5 to 12 VDC
Sensitivity	0.15 mV/g to 0.4 mV/g
Zero Measur and Output typ.	+/- 50mV
TC Zero typ. (0° to 50°C)	+/-0.2 %FSO/°C
TC Span typ. (0° to 50°C)	+/-0.4 %FSO/°C
Transvers Sensitivity Typ.	<3 %
Shock limit	5000g
Operating Temperature	-20°C to +80°C
Storage Temperature	-25°C to +100°C

Individual Technical Data

	Sensitivity	Frequency +/- 5%	Shock
Range 500g	0.4 mV/g	0-3000 Hz	5000g
Range 1000g	0.15 mV/g	0-4000 Hz	5000g
Range 2000g	0.13 mV/G	0-4000 Hz	5000g

All Data are typical at 10VDC and 24°C

	Weight	Material	Dimensions
Housing	12 gram	Aluminium, hard anodized	16.0 x 16.0 x 16.0 mm
Cable 12 wire	AWG 30	30 gram/meter	Polyuithan (PU) diameter 4.4 mm

Cable Code 12 wire system

x-axis

Red/Purple: Supply +
Black/Purple: Supply -
Green/Purple: Signal +
White/Purple: Signal -

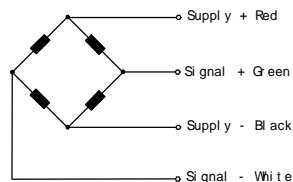
y-axis

Red/Grey: Supply +
Black/Grey: Supply -
Green/Grey: Signal +
White/Grey: Signal -

z-axis

Red: Supply +
Black: Supply -
Green: Signal +
White: Signal -

Circuit Diagram



Calibration

- Pendulum Calibration
- Sinusoidal Calibration

Calibration Data incl.:

- Sensitivity
- Frequency
- Offset
- Phase

Order Information ASC 76C1-XXX-6XX

- 1
- 2
- 3
- 4

- 1 Model: 76C1 Aluminum
- 2 Range: e.g. 500 is 500 g
- 3 Cable: Length in Meter
- 4 Connector and Pinout/
„A“ is for No Connector

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