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# Capacitive Accelerometer



Triaxial Low Cost 5 wire system Amplified Output Aluminium Housing

#### Features

- Range 2g
- Frequency from 0 Hz
- Gas Damped
- Aluminum Housing

#### **Options**

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

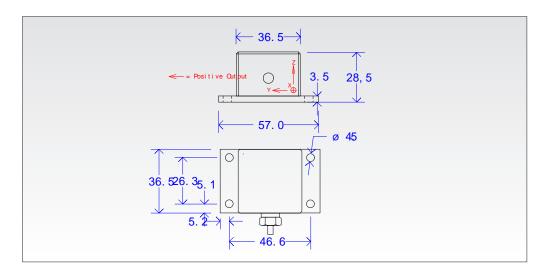
#### Applications

- Train Control
- Environment
- Engineering



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The accelerometers are based on a capacitive MEMS technology and can be used in a low frequency response up from 0 Hz. Inside the sensor element, the seismic mass is connected with two conductive capacitor plates. If the seismic mass oscillates between the two capacitor plates the capacitance will change. This capacitance change is converted via an ASIC (Application Specific Integrated Circuit) into an analog signal.



## Description

The model **ASC 5631** has been developed as low cost, triaxial acceleromter based on capacitive technology. The highly robust housing and the connecting cables are suitable for the rough application areas in train, engineering and so on.

The 0.5 to 4.5 VDC signal is independent from the 8 - 30 VDC suply. A 5 wire, high flexible and rugged cable provides a simple mounting. The **ASC 5631** is equipped with 6 meter cable as standard.



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## **General Technical Data**

Supply Voltage	8 VDC - 30 VDC
Operation Current	25 mA max.
Linearity FSO	+/- 1.0 % typ.
Damping Ratio	0.7 typ.
Signal Output	0.5 to 4.5 VDC
Zero Output	2,500 mVDC +/-100 mV
TC Zero	+/- 125 mV
TC Span	+/- 50 mV/g
Shock Resistant	2,000g
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C

## Individual Technical Data

#### **Calibration**

	Sensitivity	Frequency +/- 5%	
Range +/-2 g	1000 mV/g	50 Hz	

Pendulum CalibrationSinusoidal Calibration

At 10 VDC Supply and 25 °C

#### Calibration Data incl.:

Sens	sitiv	/ity
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Frequency

- Offset
- Phase

# Order Information ASC 5631-XXX-6XX

- Model: ASC 5631: Aluminium
- 😢 Range: e.g. 002 is 2g
- 6 Cable: Length in Meter
- Connector and Pinout / "A" is for No Connector

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	Weight	Material	Dimensions
Housing	65 gram	Aluminum, hard anodized	57.0 x 36.5 x 28.5 mm
Cable	12 gram/meter	AWG 30, Polyurethan (PU)	Diameter 3.0 mm

#### Cable Code: 5 Wire System

Red	Supply +
Black	Supply -
White	Signal x-axis
Yellow	Signal y-axis
Green	Signal z-axis

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