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# Monad Electronics

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Sole marketing agent for Government and Public Sector enterprises,  
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Monad Electronics, India

# Introduction



## **Winner of National Award for year 2009-2010 in R&D**

Monad Electronics is An ISO 9001:2015 certified company, which has been involved for over 20 year in the business of designing, manufacturing and export of Electronic Industrial products, Testing equipments , sensors and related indicating and controlling devices and allied products related to Data logging & Acquisition.

Monad is specialized in providing high end and high accuracy customized Force Transducers, Multi-Axial Force Transducers and Torque Sensors. Monad is an expert in providing import substitutes of high end Load Cells, Safe Load Indicators, etc

We are supplying to leading industries and government institutions and are also exporting our products to USA, Germany, Belgium, Turkey, Australia, U.A.E., Singapore, Spain, Brazil, New Zealand, Philippines, UK, Croatia and to the African countries.

## DC ACCELEROMETER



The DC response accelerometers are gas & Oil damped, resulting in minimal influence of thermal changes. These low-impedance units operate with a supply voltage from 8 to 24 V DC, and a supply current of 5 mA. The  $\pm 2$  volt differential output is DC-coupled at a bias voltage of 2.5 V DC, and a 2.5 V reference is built-in for differential measurements. The units can be used with either differential or single-ended input.

The units feature an internal temperature compensation that minimises thermal zero shift and sensitivity shift over a wide temperature range. All types will operate from  $-50^{\circ}$  to  $+121^{\circ}\text{C}$ .

# DC ACCELEROMETER

## Features

- \* High temperature stability
- \* Hermetically sealed
- \* 2 to 500 g full scale
- \* 10 000 g shock survivability
- \* Low power consumption

## Uses

- \* Low-frequency, motion and tilt measurements
- \* Flight testing
- \* Road load testing
- \* Transportation
- \* Modal analysis

# DC ACCELEROMETER

## Calibration

The transducers are individually calibrated providing a 1600-point, high-resolution calibration in the specified frequency range (magnitude and phase), ultimately giving a unique characterisation and securing the integrity of the vibration measurement. Transducer sensitivity is provided at 159.2 Hz and the zero g output is in mV. The individual values for thermal zero shift and sensitivity shift at compensation limits are provided.

# DC ACCELEROMETER

## SPECIFICATIONS:-

### Performance

Sensitivity

Measurement Range

Frequency Range

Resonant Frequency

Phase Response

Damping Method

Non-Linearity

Transverse Sensitivity

### SI

20/66/200 mV/g

100/25/10 mm

0 to 500/ 0 to 700/ 0 to 1000 Hz

>2 kHz

<3°

Gas/Oil

≤1 % FS

≤3 %

## DC ACCELEROMETER

### Environmental

Overload Limit (Shock)	3000 g
Temperature Range (Operating)	-50 to 120 °C
Temperature Range (Storage)	-50 to 121 °C
Temperature Coefficient of Sensitivity	± 3.0 %
Zero g Offset Temperature Coefficient	2.0 %FSO
Base Strain Sensitivity	≤ 0.01ms <sup>2</sup> /με

### Electrical

Excitation Voltage	7 to 24 VDC
Supply Current	5 mA
Output Impedance	≤100 ohm
Offset Voltage (0 g)	50 mVDC
Electrical Isolation (Base)	>100MΩ

# DC ACCELEROMETER

## Physical

Housing Material	Anodized Aluminum or Titanium (Hermetically Sealed )
Sealing	Epoxy
Weight (without cable)	≤14/18/18 gm
Electrical Connector	Integral Cable
Electrical Connection Position	Side
Cable Termination	Pigtail Ends
Cable Length	3 m
Mounting	Through Holes