

# A545 Series

DC-Operated, Single Axis  
Linear Accelerometer



## Features

- Ranges  $\pm 2g$  to  $\pm 50g$
- Essentially zero temperature coefficient of damping ratio
- Integral temperature compensation
- DCinput - DCoutput
- High reliability

## Applications

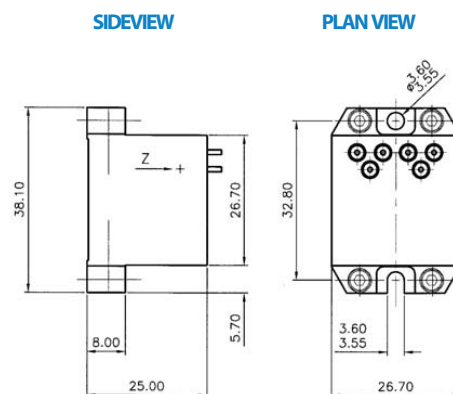
Train Performance Testing	Flight Simulator
Train Braking and Banking	Crash Recorder
Radar Levelling	Autopilot Systems
Performance Testing	Product Testing

## Benefits

- Compact size
- Wide temperature range  $-40\text{ }^{\circ}\text{C}$  to  $+105\text{ }^{\circ}\text{C}$
- Low weight 40 grams

## Electrical Connections

Pin A	+ DC excitation
Pin B	0V DC excitation
Pin C	- Signal
Pin D	+ Signal
Pin E	Not connected
Pin F	Not connected



# Specifications

## Specification by Range @25°C

	FRO	± 2g	± 5g	± 10g	± 20g	± 50g
Full Range Output (see Note 1)	FRO	± 2g	± 5g	± 10g	± 20g	± 50g
Output Sensitivity (Min/Max)	(mV/g)	6.0 to 9.0	2.4 to 3.6	1.2 to 1.8	0.6 to 0.9	0.24 to 0.36
Output Impedance	Ω(max)			1.2 to 6.5		
Output Noise	Vrms (max)			10		
Non-Linearity (see note 2)	%FRO (max)			± 0.5		
Hysteresis	%FRO (max)			0.02		
Resolution	%FRO (max)			0.0005		
Cross-axis Sensitivity (see note 3)	%FRO (max)			± 1		
Zero Offset	Volts dc (max)			± 2		
Damping Ratio				0.7 (± 0.2)		
Thermal Zero Shift	%FRO/°C (max)			± 0.02		
Thermal Sensitivity Shift	%Reading/°C (max)			± 0.02		
Sensitive Axis Alignment				Vertical to mounting face		
Weight	Grams (max)			40		

## Electrical

Input Voltage	Volts dc	14.5 to 27
Input Current	mA dc (max)	5

## Environmental Characteristics

Operating Temp. Range	°C	-40 to 105
Compensated Temp. Range	°C	0 to 50
Storage Temp. Range	°C	-55 to 130
Humidity/Immersion		IP 65
Insulation Resistance	MΩ (@50Vdc)	20

## Notes

1. Full Range Output (FRO) is defined as the full acceleration Excursion from positive to negative, i.e. ±2g = 4g
2. Non-linearity is determined by the method of least squares
3. Cross-axis sensitivity is the output of unit when subjected to full range acceleration in cross-axis

## Model Designation & Ordering Code

**A 5 4 5 - 0 0 0 1 -   g**  
└─ g Range

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