

## A640 Series

DC-Operated Accelerometer with unfiltered and low pass filter outputs



### Features

- Ranges  $\pm 1g$  to  $\pm 20g$
- Essentially zero temperature coefficient of damping ratio
- Filtered and unfiltered outputs simultaneously available
- Integral temperature compensation
- DC input - DC output
- Signal ground isolated from power ground
- High reliability

### Applications

Data acquisition Systems

Crash recorders

Road bed analysis

Railways

Simulators

Vibration monitoring

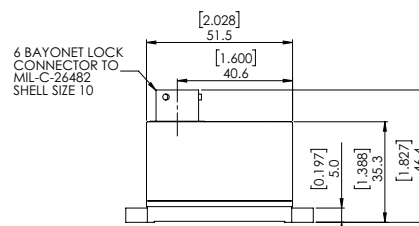
### Benefits

- High resolution down to 0.001% FRO (max)
- Low weight 120g
- Wide temperature range  $-40\text{ }^{\circ}\text{C}$  to  $+100\text{ }^{\circ}\text{C}$

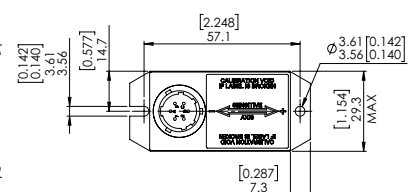
### Electrical Connections

Pin A	Supply +
Pin B	Supply 0v
Pin C	Signal ground
Pin D	Signal output (filtered)
Pin E	Signal output (unfiltered)
Pin F	Not connected

SIDE VIEW



PLAN VIEW



## Specifications

### Specifications by Range @ 25°C

		±1g	±2g	±3g	±5g	±10g	±20g
Output Impedance	Ω (max)			1			
Output Noise	V rms (max)			5			
Filtered Output Response	dB			-3			
Non-linearity (see note 2)	% FRO (max)			±0.5			
Hysteresis	% FRO (max)			0.02			
Resolution	% FRO (min)			0.001			
Cross-axis Sensitivity (see note 3)	% FRO (max)			±1			
Zero Offset (see note 4)	% FRO (max)			±2			
Damping Ratio				0.7 (±0.2)			
Thermal Zero Shift	%FRO/°C (max)			±0.02			
Thermal Sensitivity Shift	%Reading/°C (max)			±0.02			
Weight	grams (max)			120			

### Electrical

Full Range Output (FRO) (see note 1)	Volts dc	±5 (±2%)
Input Voltage	Volts dc	+6 to 32Vdc Unregulated
Input Current	mA dc (max)	100

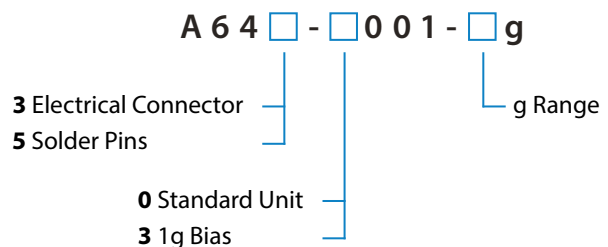
### Environmental Characteristics

Operating Temperature Range	°C	-40 to 100
Compensated Temperature Range	°C	0 to 50
Storage Temperature Range	g	-55 to 130
Shock	g	200 for 2ms
Insulation Resistance	MΩ (@50V dc)	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
4. Zero offset is specified under static conditions with no vibration inputs

## Model Designation & Ordering Code



Please specify Mating Connector 3CON-0009 if required