



A640 Series

DC-Operated Accelerometer with unfiltered and low pass filter outputs

Features

- ④ Ranges $\pm 1g$ to $\pm 20g$
- ④ Essentially zero temperature coefficient of damping ratio
- ④ Filtered and unfiltered outputs simultaneously available
- ④ Integral temperature compensation
- ④ DC input - DC output
- ④ Signal ground isolated from power ground
- ④ High reliability

Applications

Data acquisition Systems

Crash recorders

Road bed analysis

Railways

Simulators

Vibration monitoring

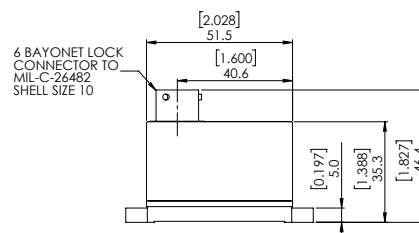
Benefits

- ④ High resolution down to 0.001% FRO(max)
- ④ Low weight 120g
- ④ Wide temperature range $-40^{\circ}C$ to $+100^{\circ}C$

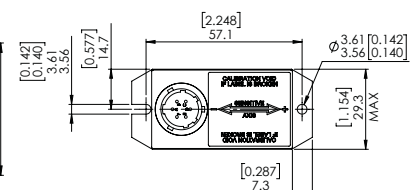
Electrical Connections

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

SIDEVIEW



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 (seenote 2)	% FRO(max)						±0.5
Hysteresis	% FRO(max)						0.02
Resolution	% FRO(min)						0.001
Cross-axis Sensitivity (seenote 3)	% FRO(max)						±1
Zero Offset (seenote 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)(seenote 1)	Volts dc						±5 (±2%)
Input Voltage	Volts dc						+6 to 32Vdc Unregulated
Input Current	mA dc (max)						100

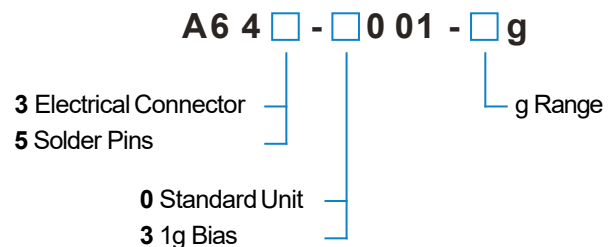
Environmental Characteristics

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 (@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
4. Zero offset is specified under static conditions with no vibration inputs

Model Designation & Ordering Code



Please specify Mating Connector 3CON-0009 if required

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