

- **Very Low Noise**
- **Wide Temperature Range**
- **Low Power**
- **Rugged**



EA-140 Triaxial Force Balanced Accelerometer

The EA-140 occupies the high-end range of the Servo Force Balance Accelerometer line. It offers very low noise, high dynamic range, in a frequency band of DC to 50 Hz. It is suited for specialized strong motion monitoring applications. The EA-140 standard packaging is an open-ended 3 1/4 inch plate that can be mounted internally in the eentec recorder or the R-1 Triaxial Rotational Sensor. Optional freestanding field or borehole packages are available. The sensor elements are housed in an epoxy sealed aluminum case. They are extremely rugged, and designed for long-term deployment in field environments. Unlike solid-state type accelerometers, the EA-140 does not experience significant drifting with temperature changes. Options include a variety of full-scale "g" levels, user selectable full-scale "g" ranges, and other frequency bands.

Specifications	
Full Scale Range Standard	± 2 g
Optional	± 0.5 g to ± 5 g, user selectable opt.
Dynamic Range	142 dB \pm 5V 148 dB \pm 10V
Frequency Band Standard	DC to 50 Hz +1, -3 dB (damping 70% critical)
Optional Extended	DC to 100 Hz, 200 Hz (damping 70% critical)
Output Signal Swing	0.5 to 4.5 V or ± 2.5 V, ± 5 V, ± 10 V
Resolution (at ± 10 V)	0.1 μ g @ 1g 0.2 μ g @ 2g
Zero G bias	± 0.01 g, optional electronic adjustment
Linearity	$\pm 0.2\%$ FS over temperature range (0.1% opt)
Cross Axis Sensitivity	0.02 g/g (0.005 g/g option)
Operation Temperature Standard	-10° to 75° C (opt SS +85° C)
Power Supply	12 VDC
Supply Current Maximum	30 ma (triaxial)
Vibration Survival	10 g p-p, 2 to 2,000 Hz
Shock Survival	1000 g, 1 ms 100 g, 11 ms
Humidity	95% R.H. (opt. SS 100%R.H.)
Housing Standard	Open Internal Mount 3.25" plate appx.
Optional	Field Enclosure, SS (stainless steel), Borehole
Specifications subject to change.	

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