



## Made for structural monitoring and seismology.

LTFB-160 is a high performance true mechanical force balance accelerometer which was conceived specifically for structural monitoring and seismology. Thanks to the high dynamic range the LTFB-160 provides excellent data both where the seismic noise is extremely low (as in environmental noise) and in the presence of strong motion events. Our standard true force balance accelerometer comes with a frequency range from 0 to 80Hz, this range is tuned expressly for structural and seismic analysis where the higher frequencies are of no practical interest. Structures' natural frequencies are typically in the order of a few Hertz. Lunitek provides custom bandwidth extension up to 200Hz for scientists and engineers who are interested in evaluating motions at higher frequency. LTFB-160 is available in four ranges:  $\pm 0.5g$ ,  $\pm 1g$ ,  $\pm 2g$ ,  $\pm 4g$ .

# LTFB-160

## TRUE MECHANICAL FORCE BALANCE ACCELEROMETER

### KEY FEATURES

HIGH DYNAMIC RANGE UP TO 160dB

FREQUENCY RANGE DC ÷ 80Hz (200HZ OPT)

FULL SCALE RANGES AVAILABLE  $\pm 0.5G$ ,  $\pm 1G$ ,  $\pm 2G$ ,  $\pm 4G$

HIGH ACCURACY

LOW SELF-NOISE

GOOD THERMAL STABILITY

POWER SUPPLY FROM 5V UP TO 40V



APPLICATIONS

PERFORMANCE

INTERFACE

POWER SUPPLY

OP. CONDITIONS

PHYSICAL

Seismology  
Structural monitoring

**TPOLOGY** Biaxial or Monoaxial  
**FEEDBACK** Force balance  
**FULL-SCALE RANGE**  $\pm 4g, \pm 2g, \pm 1g, \pm 0.5g,$   
**BANDWIDTH** DC to 80 Hz -3 dB point (200Hz extension available)  
**DYNAMIC RANGE** (Integrated RMS)  
 160 dB @ 1 Hz over 1 Hz bandwidth  
 150 dB, 3 to 30 Hz  
**OFFSET** < 1mg  
**NON-LINEARITY** <  $\pm 0.1\%$  FS  
**SCALE FACTOR TEMPERATURE COEFFICIENT** 0.01% / deg C Max

**CONNECTOR** 62GB-12E12-10SN, 10-pin  
**ACCELERATION OUTPUT** 40 Vpp differential  
**OUTPUT IMPEDANCE** 2 x 50  $\Omega$   
**TEST INPUT** active high voltage > 3V

**POWER SUPPLY** 5 to 40 V DC isolated input  
**POWER CONSUMPTION** 1.5 W typical quiescent  
**PROTECTION** Reverse-voltage, overvoltage and surge protected  
**ISOLATION** Supply power is isolated from signal ground  
**GROUNDING** Predrilled hole for M4 x 5 grounding lug screw

**STORAGE TEMPERATURE RANGE** -20 ÷ +80 °C  
**HUMIDITY** 0 to 100%  
**OPERATING TEMPERATURE RANGE** - 40 ÷ +80°C  
**WEATHER RESISTANCE** Rated to IP67, IP68 opt

**HOUSING** Aluminum, anodized hard coating  
**LEVELING** Integrated bubble level Adjustable locking leveling screws  
**OD** 134mm  
**HEIGHT** 72 mm  
**WEIGHT** 960 g

