



High accuracy, 3-axis digital accelerometer

Thanks to its extremely low noise, low power and wide frequency response the LTME family guarantees accurate and stable seismic measurements without the need for recalibration or maintenance during the lifecycle of the system. LTME-150 comes with a dynamic range >150dB and a broadband linear response from DC to 460Hz. Maximum full-scale range is $\pm 15g$. LTME-150 is housed in hard-coating aluminum case IP67, IP68 is available optionally. The ultra-low noise ($0.2\mu G\sqrt{Hz}$) makes the LTME-150 well suited for seismic health monitoring and seismic observation, satisfying all the requirements for strong motion event monitoring. In fact, even in the presence of light tremors, the data output is completely superimposable on the mechanical force balance.

LTME-150

MEMS ACCELEROMETER

KEY FEATURES

MEMS TECHNOLOGY

DYNAMIC RANGE >150 dB

FREQUENCY RANGE DC ÷ 460 HZ

FULL SCALE RANGES AVAILABLE $\pm 15g$
different full-scale are software selectable

HIGH ACCURACY AND DURABILITY

LOW SELF-NOISE / LOW POWER CONSUMPTION

GOOD THERMAL STABILITY

POWER SUPPLY FROM 5V UP TO 36V

TPOLOGY Triaxial, Biaxial and Monoaxial

TECHNOLOGY MEMS

FULL-SCALE RANGES $\pm 15g$, different full-scale are software selectable

SCALE FACTOR 0.06 $\mu G/LSB$

CALIBRATION 1.5% (scale factor deviation)

NOISE IN BAND 0.2 $\mu G\sqrt{Hz}$, rms (0.7 max)

NOISE PSD @1Hz 0.1 $\mu G\sqrt{Hz}$

@10s 0.5 $\mu G\sqrt{Hz}$

DYNAMIC RANGE (dB) >150dB

BANDWIDTH 0÷460 Hz, -3 dB

RESOLUTION >24 bit

OUTPUT DATA RATE 50 to 1000 cps

BUILT IN LPF CUT OFF 9 to 460 Hz

NON-LINEARITY % FS ± 0.03

BIAS TEMPERATURE ERROR (mg/°C max) $\pm 2mG$

SYNCHRONIZATION Sync pin driven by host

CONNECTORS 62GB-12E12-10SN, 10-pin

ACCELERATION OUTPUT Digital (UART/RS232/RS422)

POWER SUPPLY 5÷36Vdc

POWER CONSUMPTION <100mW (<10mA@12V)

PROTECTION Reverse-voltage, overvoltage and surge protected

GROUNDING Predrilled hole for M5 x 6 grounding lug screw

OPERATING TEMPERATURE -25°C to +60°C

HOUSING Aluminum, anodized hard coating

LEVELING Integrated bubble level and adjustable locking leveling screws

PROTECTION GRADE IP67

OD 96 mm

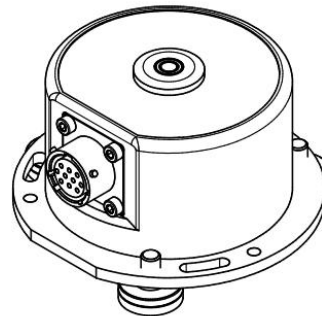
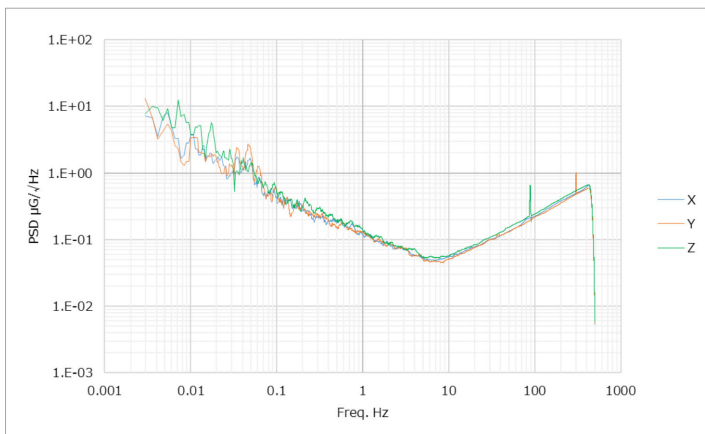
HEIGHT 50 mm

WEIGHT <400 g

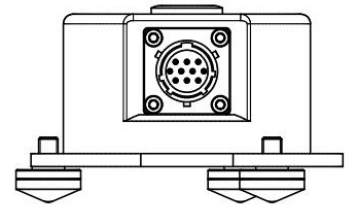
INSTALLATION:

PERFORMANCE

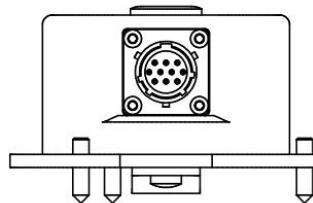
Power Spectrum Density (Reduced noise floor condition)



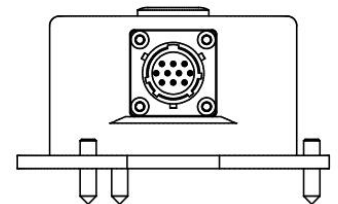
Installation with adjustable feet



Installation with adjustable feet



Installation with single central bolt and adjustable feet



Installation with three 120° screws and adjustable feet

