

MC3246

Landing Gear Sensor

DESCRIPTION

AMTI's MC3246 Force Platform is specifically designed for the precise measurement of forces in three axes. This sensor measures along the X, Y and Z axes, giving a total of three outputs. These strain gauge sensors have high stiffness, high sensitivity, low crosstalk, excellent repeatability as well as long term stability.

Applications

The MC3246 force and torque sensor is designed for use in the research, development and drop testing of aircraft undercarriage equipment. The MC3246 is particularly suitable of applications requiring simultaneous multi axis measurement of several large forces, or measurement of large forces that change direction and position over time



AMPLIFICATION

The MC3246 Force Platform incorporates strain gauges mounted on four precision strain elements in a patented design to measure forces and moments. As with most conventional strain gauge transducers, bridge excitation and signal amplification is required.

AMTI's product line includes two strain gauge amplifiers, the analogue MSA-6 and Gen 5. Both these amplifiers are high gain devices which provide excitation and amplification for multiple channels in one convenient package

Calibration

Each platform is inspected and tested in AMTI's calibration facility. The calibration procedure provides a detailed sensitivity matrix and a complete test of all systems components, including the amplifier and connecting cable.

Custom

AMTI also offers special multi-axis transducers to meet your specific requirements. Units are available that are water proof, pressure compensated, non-magnetic, non-conductive and transparent. Capacities from 1lb (4.5N) to 3 million lbs (13.3Mn) can be made.

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Specifications

MC3246 SPECIFICATIONS	100,000	150,000	200,000
Fx, Fy Capacity, lb, (N)	50,000 (222,411)	50,000 (222,411)	50,000 (222,411)
Fz Capacity, lb, (N)	100,000 (444,822)	150,000 (667,233)	200,000 (889,644)
Fx, Fy Natural Frequency, Hz	400	500	580
Fz Natural Frequency, Hz	600	600	600
Fx, Fy Sensitivity (μV/V-N)	0.674	0.45	0.337
Fz Sensitivity (μV/V-N)	0.27	0.18	0.135
Dimension, mm	837 x 1,320 x 241	837 x 1,320 x 241	837 x 1,320 x 241
Weight, lb, (Kg)	830 (377.27)	830 (377.27)	830 (377.27)

GENERAL SPECIFICATIONS

Excitation: 10V maximum.; Crosstalk: Less than 2% on all channels; Temperature Range: 0 to 125°F, (-17 to 52°C) Fx, Fy, Fz hysteresis: ± 0.2 % Full: Scale Output: Fx, Fy, Fz non-linearity: ± 0.2% Full Scale Output.

Dimensions

