

# AD2.5D

## DESCRIPTION

AMTI's AD2.5D Force and torque sensor specifically designed for the precise measurement of forces and moments. This sensor measures along the X, Y and Z axes, along with the moments around these axis, giving a total of six outputs. These strain gauge sensors have high stiffness, high sensitivity, low crosstalk, excellent repeatability as well as long term stability. Standard capacity is 100 lb (445N) vertical capacity. Other capacities are available on request



## Applications

The AD2.5D force and torque sensor is designed for use in the research, development and testing. The AD2.5D is particularly suitable of applications requiring simultaneous multi axis measurement of several forces and moments, or measurement of forces that change direction and position over time

## AMPLIFICATION

The AD205D 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 transducer 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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# AD2.5D

## Force & Torque Sensor

### Specifications

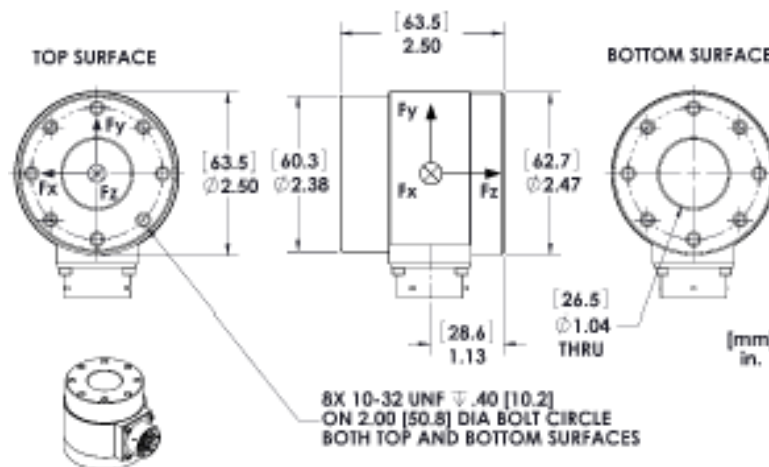
AD2.5D SPECIFICATIONS	100	250	500	1000
Fx, Fy Capacity, lb, (N)	50 (222)	125 (556)	250 (1112)	500 (2224)
Fz Capacity, lb, (N)	100 (445)	250 (1112)	500 (2224)	1000 (4448)
Mx Capacity, in*lb, (Nm)	100 (11)	250 (28)	500 (56)	1000 (112)
My Capacity, in*lb, (Nm)	100 (11)	250 (28)	500 (56)	1000 (112)
Mz Capacity, in*lb, (Nm)	50 (5.6)	125 (14)	250 (28)	500 (56)
Mx Natural Frequency, Hz	300	500	700	1000
Dimension, in	2.5 x 2.5	2.5 X 2.5	2.5 X 2.5	2.5 X 2.5
Weight, lb, (Kg)	1 (0.445)	1 (0.445)	1 (0.445)	1 (0.445)

### 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.



### WIRING

