

**Description**

Multi axis transducer Model MAT – 200 is multi axis force & torque sensor designed for measuring the force & torque in the Lathe Operation, Tribology research in Automotives. It exhibits high sensitivity, low cross talk & excellent repeatability. This is strain gage based sensor with full temperature compensation over 10 to 50°C. This is available with three axis force sensing in X, Y & Z directions and torque around X, Y, Z axis. This also can be designed as per customer's requirement.

**Features**

- Multi axis force and torque combinations are available.
- Available in various capacities, ranging from 0 – 10N to 0 – 50N for force & 0 – 10 NM to 0 – 50NM for torque.
- Can be provided in various shapes like Rectangular, Cylindrical, Platform or Flanged

**Applications**

Lathe Operation Grinding & abrasive Wheel Research Tool Wear research Robotics	Cutting Force Dynamometer Material Testing Automotive Research Tribology Research
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**Performance Specification**

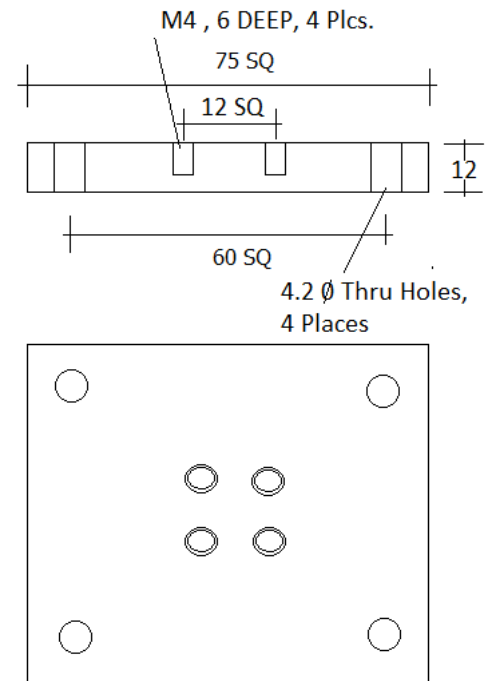
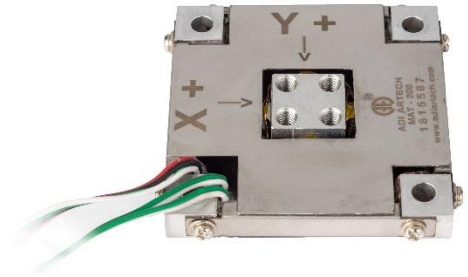
Standard Capacities	Force Torque	UP TO 10 N – X, Y, Z AXIS UP TO 10 NM – Z AXIS
Excitation Voltage		10 VDC- Maximum 15 VDC
Nominal Output	Force Torque	0.5 mV/V in X, Y, Z axis 0.5 mv/V in Z axis
Non - Linearity		< ±0.5% FSO (Full Scale Output)
Hysteresis		< ±0.5% FSO
Non-Repeatability		< ±0.2% FSO
Creep (30 minutes)		< ±0.5% FSO
Zero Balance		±1.0% FSO
Bridge Resistance		350 / 700 ± 20 Ohms
Insulation Resistance (50 VDC)		> 2000 Mega Ohms
Cable Length ( 10 Core)		3 Meters
Safe Overload of Rated Capacity		150%
Ultimate Overload of Rated Capacity		200%
Temp. Compensated Range		10-50°C
Temperature Effect on Output		< 0.05% FSO/ °C
Temperature Effect on Zero		< 0.05% FSO/ °C
Deflection		< 0.4 mm at FSO
Finish & Construction		Aluminum Alloy
Environmental Protection Class		IP65

**Electrical Termination**

**6 / 8 core cable for -**  
**Excitation: 2 cores**  
**X, Y, z Force : 4 cores**  
**Z Torque : 2 cores**

Specification are subject to change.

All dimensions are in mm.



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