

Description

Multi axis transducer Model MAT – 200 is multi axis force sensor designed for measuring the force in the lathe operation. It exhibits high sensitivity with low cross talk & excellent repeatability. This is strain gage based sensor with full temperature compensation over 10 to 60°C. This is available with three axis force sensing in X, Y & Z directions. This is designed & manufactured as per customer's requirement.

Features

- Multi axis force and torque combination available.
- Available in various capacities, ranging from 0 – 100 N to 0 – 20000 N for force & 0 – 100 NM to 0 – 1000NM for torque.
- Can be provided in various shapes like Rectangular, Cylindrical, Platform or Flanged

Applications

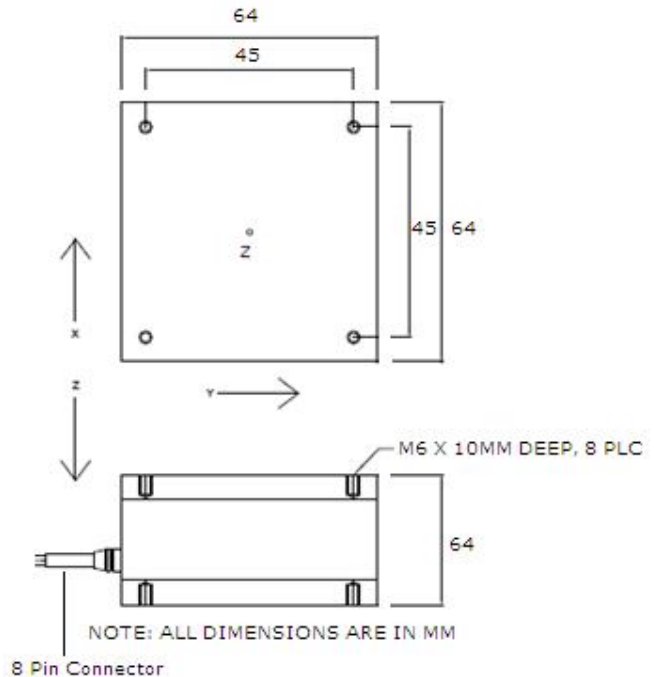
Lathe Operation	Cutting Force Dynamometer
Grinding & abrasive Wheel Research	Material Testing
Tool Wear research	Automotive Research

Performance Specification

Standard Capacity	Force	X, Y - 5 KN Z - 20 KN
Excitation Voltage		10 VDC- Maximum 15 VDC
Nominal Output	Force	1 to 1.5 mV/V in X & Y axis 1 - 1.5mV/V in Z axis
Non - Linearity		< ±0.5% FSO (Full Scale Output)
Hysteresis		< ±0.5% FSO
Cross Talk		Fz → Fx, Fy - 1% Fx ↔ Fy - 2 % Fx, Fy → Fz - 3%
Non-Repeatability		< ±0.2% FSO
Creep (30 minutes)		< ±0.05% FSO
Zero Balance		±1.0% FSO
Bridge Resistance		350 / 700 ± 20 Ohms
Insulation Resistance (50 VDC)		> 2000 Mega Ohms
Cable Length (8 Core)		5 Meters
Safe Overload of Rated Capacity		150%
Ultimate Overload of Rated Capacity		200%
Temp. Compensated Range		10-60°C
Operating Temperature		0 – 90°C
Temperature Effect on Output		< 0.05% FSO/ °C
Temperature Effect on Zero		< 0.05% FSO/ °C
Finish & Construction		Electroless Nickel plated Tool Steel
Environmental Protection Class		IP65

Electrical Termination

8 core cable for
Excitation: 2 core
X, Y, Z Force: 6 cores



Manufactured by:

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