

Description

Model FT-200-SPL is Multi Parametric Sensor for force & torque measurements of tightening bolt. It is designed for measuring the force & Torque in the Fastener Testing. 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 measures force generated due to bolt tightening, Torque applied to the bolt and Torque generated across the bolt body. The Sensor is fitted to the sturdy base through top flange. Bolt is fitted from top inserting through the hole (size is as per bolt requirement) and nut is fixed at bottom-nut locking arrangement is provided. When bolt is tightened - total applied torque (**T1**), force (**F1**) generated due to tightening the bolt and torque (**T2**) across the bolt body is generated and is measured by this sensor. These three Parameters **T1**, **F1** and **T2** can be displayed on instrument with computer interface.

Features

- Multi axis force and torque combination available.
- Available in various capacities, ranging from 0 –250000N for force & 0 – 25000 NM for torque.
- Can be provided in various shapes like Rectangular, Cylindrical, Platform or Flanged to suit customer's requirements.

Applications

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

Performance Specification

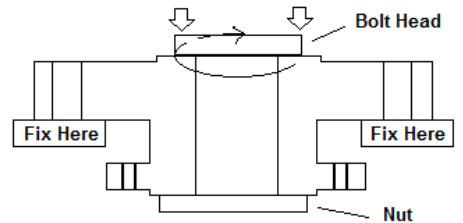
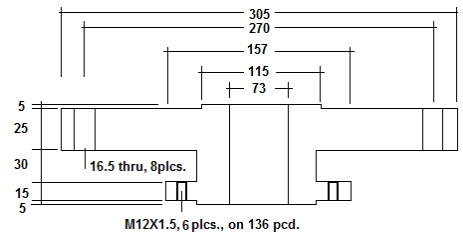
Standard Capacities	Force -1 Torque-1 Torque-2	250000N 2500NM 1000NM
Excitation Voltage		10 VDC- Maximum 15 VDC
Nominal Output	Force Torque	0.75 - 1.5 mV/V 0.75 - 1.5mv/V
Non - Linearity		< ±1.5% FSO (Full Scale Output)
Hysteresis		< ±0.5% FSO
Non-Repeatability		< ±0.5% FSO
Creep (30 minutes)		< ±0.25% FSO
Zero Balance		±5.0% 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		0-60°C
Temperature Effect on Output		< 0.04% FSO/ °C
Temperature Effect on Zero		< 0.04% FSO/ °C
Deflection		< 0.4 mm at FSO
Finish & Construction		Tool Steel
Environmental Protection Class		IP65 – gage area

Electrical Termination

8 core cable for-
Excitation: 2 core
Force: 2 cores
Torque : 4 cores

Options

Compatible Instrument with 4-20 mA / 0-2
Volt Output
Digital Version with RS-485 interface /
USB output
Blue Tooth Or Wireless Telemetry
Software for Graphic, Tabulation, Reporting
And Analysis



Specifications are subject to change.

All dimensions are in mm.



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