Tiny Motor Dynamometer Test System

Load-Sensor & Pulley Specifications :

Model	Load Sensor	Directly loaded on the shaft *1	Pulley Radius (mm)			
			2.5mm	5mm	10mm	20
JP-0.5N	0.5N	–	1.25mNm	2.5mNm	5mNm	10
JP-1N	1N	–	2.5mNm	5mNm	10mNm	20
JP-2N	2N	–	5mNm	10mNm	20mNm	40
JP-5N	5N	–	12.5mNm	25mNm	50mNm	100
JP-10N	10N	–	25mNm	50mNm	100mNm	200
JP-20N	20N	–	50mNm	100mNm	200mNm	400

Torque = Load-Sensor Rating (N) × Pulley Radius (mm)

*1 Torque will be related to motor shaft Radius.

Profile :

Adopting the unique Prony (winding) braking technology.

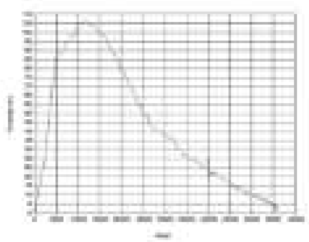
It is available to measure high-precision T-N curve.

Advantages :

- **No inertia & No coupling loss :**
  Due to using the Prony method, there are no inertial forces and coupling losses during the test. They are crucial that affecting the accuracy of the testing of micro motors.
- **Wide Measuring Range :**
  Six models of the sensor, to select the proper sensor and pulley.
  The measuring Range is from 0.1 to 400 mNm.
- **Monitoring and analysis easier :**
  Real-time display of the testing results on the screen.
  Data-File can be exported to Excel format.
- **High Speed :**
  The Max. Speed up to 80,000rpm.
- **Add a power analyzer and you can measure V/A/W and the efficiency of the motor.**

Measured Example :

X-axis : Speed / Y-axis : Torque



Specifications :

BRAKE	Prony braking
LOAD-SENSOR	Six types : 0.5N 1N 2N 5N 10N 20N
SENSOR SENSITIVITY	DC 2V rating
TORQUE PRECISION	Within ±1% of torque range
MAXIMUM ALLOWABLE LOAD	200% of Sensor rating
TORQUE MEAS. RANGE	T-Sensor Rating X Pulley Diameter / 2
OPERATING SYSTEM	Microsoft Windows
POWER SUPPLY	Single-phase AC100-120V ±10% 50/60Hz Single-phase AC200-240V ±10% 50/60Hz