

Description

ADI ARTECH'S Torque Transducer TTD-NC-RPM is dynamic rotary type torque sensor for accurate measurement of Torque, RPM and Power in Motor Testing. It is constructed from hardened SS 17-4 ph. material. This is strain gage based sensor with full temperature compensation over 10~50°C. **It is Embedded with measuring circuit, ADC, Microcontroller and wireless Transmitter. Compatible remote Display is provided with TORQUE, RPM and POWER. RPM is measured by Hall Effect Magnetic switch.** It is very accurate, reliable and sturdy for industrial applications. It is compensated for axial and bending forces for accurate torque measurements. It is available from 0 to 20 NM to 0 to 50000 NM ranges.

This is supplied with 1-Torque Sensor of suitable range, 2-Hall Effect Magnetic Sensor for RPM and 3- Display unit showing Torque, RPM and Power.

TTD is available in wide variety of options: both ends shaft, both ends flange and combination of shaft & flange.

Customized version can be provided as per user's dimensions and capacity.

Features

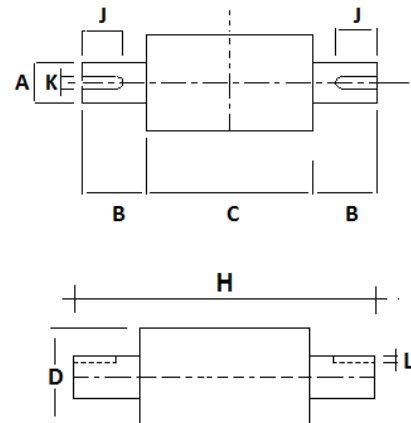
- ❖ 0-20 to 0-50KNM Capacities available.
- ❖ Stainless Steel 17-4 PH construction for resistance against shock and overload.
- ❖ **Serial RS485 Port - Modbus RTU Protocol is offered optionally.**
- ❖ **Torque vs. Angle of rotation in testing equipment or specimen can be offered in place of RPM.**

Applications

- ❖ **Testing mechanical power in Electrical Motors, Gear Boxes and Pumps using Torque & RPM inputs.**
- ❖ Process control where Torque and RPM are monitored.
- ❖ Assembly control where torque is evaluated against angle of rotation.
- ❖ Test of friction clutches in pneumatic and electric screw drivers.

Performance Specification

Standard Capacities in NM	See Table below
RPM	5000 max - Non - Contact type - Radio Telemetry system
Non - Linearity	< ±0.1% FSO
Hysteresis	< ±0.1% FSO
Non-Repeatability	< ±0.25% FSO
Creep (30 minutes)	< ±0.05% FSO
RF Transmitter	Battery operated with inbuilt battery installed on the Torque Shaft. Transmits sensor signal via Radio Telemetry to stationary Receiver. Power on/off switch, Power socket, Power status LEDs provided on the sensor body. Transmitter to Receiver range - 5 Meters.
Rechargeable Battery	Li-Ion battery pack capable of 20 Hrs run time installed in Transmitter with battery charger.
Zero Drift with temperature	± 0.02% of span / °C
Span Drift with temperature	± 0.02% of span / °C
Operating Temperature	0 to 50 °C
Safe Overload	150% OF RC
Ultimate Overload	200% OF RC
Temp. Compensated Range	10 to 50 °C
Display & Receiver	Alfa Numeric Display for - Torque, RPM and Power.
Display & Receiver Power	230VAC @ 50 HZ
Finish & Construction of TTD	Stainless Steel 17 - 4 PH



Capacity - NM	A	B-appx.	C-appx.	D-appx.	J	K	L	H
20, 50, 100, 200	25	30	120	80	25	8.0	4.0	180
300, 500, 1000	40	40	120	100	40	12.0	5.0	200
2K, 3K, 5K	60	60	120	120	60	18.0	7.0	240
10K	75	80	120	130	75	20.0	7.5	280
15K	90	100	120	145	90	25.0	9.0	320
20K, 30K, 40K	120	122.5	120	175	120	32.0	11.0	365
50K	140	145	120	195	140	36.0	12.0	410

Specifications are subject to change.

All dimensions are in mm.

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