

Description

ADI ARTECH'S Torque Transducer TTD is **CE Certified** general purpose dynamic rotary type torque sensor for accurate measurement of Torque in rotating shaft or equipment. 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.** 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. TTD is available in wide variety of options: both ends shaft, both ends flange and combination of shaft & flange versions for dynamic torque measurements. It is also offered for speed up to 5000 RPM max. Customized version can be provided as per user's dimensions and capacity.

Features

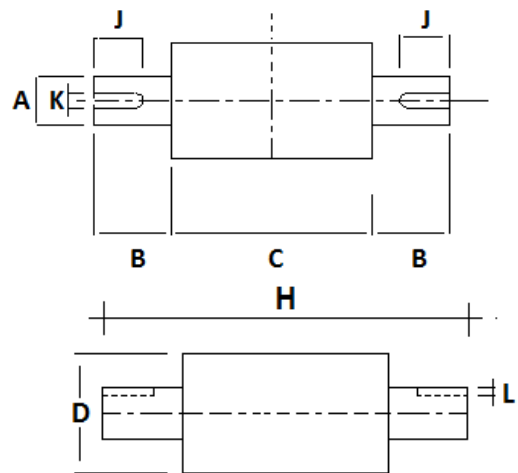
- ❖ **CE Rated** ❖ 0 - 20 TO 0 – 50KNM Capacities available.
- ❖ Stainless Steel 17-4 PH construction for resistance against shock and overload.
- ❖ Can be designed to fit your dimensional needs.
- ❖ Other capacities are available on request.

Applications

| | |
|--|---|
| Electrical tool testing | Gear Box Testing |
| Axle/shaft torsion test | Bearing friction measuring |
| Testing of starters/slip rings/brushes/clutches/brakes | Electric/hydraulic/pneumatic motors testing |
| Alternators/pumps/gas & diesel turbine engines testing | Engine Dynamometer, Automobile Testing |

Performance Specification

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|------------------------------|--|
| Standard Capacities in NM | 20, 50, 100, 200, 300, 500, 1K, 2K, 3K, 5K, 10K, 15K, 20K, 30K, 40K, 50K |
| RPM | 5000 max Non – Contact type with 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 body. Transmitter range-15 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 | LED with 5 Digit Receives Radio Signal from Transmitter fitted on sensor. Max. distance-5Mtrs. |
| Display & Receiver Power | 230VAC @ 50 HZ |
| Finish & Construction of TTD | Stainless Steel 17 – 4 PH |



- Options With wireless telemetry offered are-**
- *4-20 mA / 0-2 Volt Output. RPM and Power Display.
 - *Digital Version with RS-485 interface / USB output for computer or PLC interface.
 - *Software for Graphic, Tabulation, Reporting And Analysis.

| 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 |

Specification are subject to change.

All dimensions are in mm.

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|--|---|--|
| | Manufactured by: | 917/1, G.I.D.C. Estate, Makarpura, Vadodara - 390 010, Gujarat, INDIA |
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