

**Description**

ADI ARTECH'S Torque transducer TTD is **CE Certified** general purpose dynamic rotary type torque sensor for accurate measurement of **Torque & Thrust in rotating shaft or equipment**. It is constructed from hardenable, SS 17-4 PH material. This is strain gage based sensor with full temperature compensation over 10~50°C. 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 10NM to 0 to 10KNM ranges. **Higher than 10KNM is preferred in Wireless Telemetry type design**. Torque sensing shaft is installed in ball journals and electrical signals are transferred through high quality, low noise slip ring and brush mechanism. **This is provided with male shaft with key slot for locking at both ends**. It is available for speed up to 2500 RPM max.

TTD is available in wide variety of options: both ends shaft, both ends flange and combination of shaft & flange versions for dynamic torque measurements. Customized version can be provided as per user's dimensions and capacity.

**Features**

- ❖ **CE Rated** ❖ 0-50NM/15KN to 0-50KNM/1500KN 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.

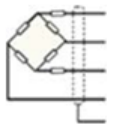
**Applications**

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, Engine Dynamometer, Automobile Testing
Alternators/pumps/gas & diesel turbine engines testing	Process Industries, <b>Drilling &amp; Rigging Process</b>

**Performance Specification**

Standard Capacities in NM	See Table below
Excitation Voltage	10 VDC
Nominal Output	2m V / V
Non - Linearity	< ±0.2% FSO
Hysteresis	< ±0.1% FSO
Non-Repeatability	< ±0.1% FSO
Creep (30 minutes)	< ±0.3% FSO
Zero Balance	±1.0% FSO
Input Resistance	390 Ohms
Output Resistance	350 Ohms
Insulation Resistance (50 VDC)	> 1000 Mega Ohms
Cable Length (4 Core Screened)	5 Meters
Safe Overload	150% OF RC
Ultimate Overload	200% OF RC
Temp. Compensated Range	10-50 °C
Temperature Effect on Output	< 0.005% FSO/ °C
Temperature Effect on Zero	< 0.0050% FSO/ °C
Rotational Angular Deflection	< 0. 2 ° at FSO
Finish & Construction	Stainless Steel 17 - 4 PH
Environmental Protection Class	IP65 - Gage area

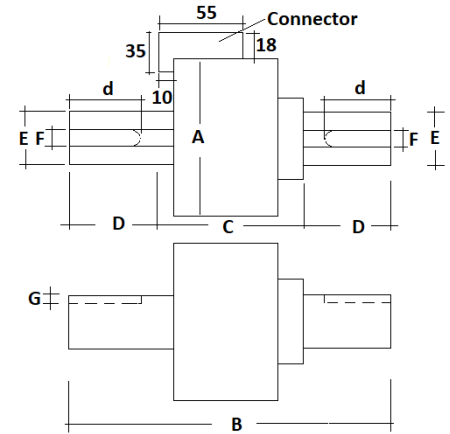
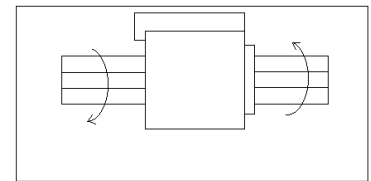
**Electrical Termination**



- + Input - Red
- + Output - Green
- Input - Black
- Output - White
- Shield - Floated

**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



Cap- .NM / KN	A	B	C	D - Appx.	d	E	F	G	Max. RPM & Rotational life
50 / 15K, 100 / 25K, 200 / 40K	86	180	70	55	25	25	8	4	2500RPM, 20Millions
300 / 50K, 500 / 75K, 1K / 125K	100	200	55	72.5	40	40	12	5	2000RPM, 15Millions
2K / 200K, 3K / 250K, 5K / 375K	130	200	60	70	60	60	18	7	1500RPM, 10.5Millions
10K / 600K	160	240	72	84	75	75	20	7.5	1000RPM, 5Millions
15K / 750K	185	280	80	100	90	90	25	9	500RPM, 2.5Millions
20K / 1000K, 30K / 1250K, 40K / 1400K	220	365	105	130	120	120	32	11	250RPM, 1Millions
50K / 1500K	250	410	114	148	140	140	36	12	100RPM, 0.5Millions

Specifications are subject to change.

All dimensions are in mm.



Manufactured by:

**ADI ARTECH**  
**TRANSDUCERS PVT. LTD.**  
 (An ISO 9001:2015 Certified Company)

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