

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 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

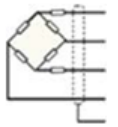
- ❖ **CE Rated** ❖ 0-10NM to 0-50KNM Capacities available.
- ❖ Stainless Steel 17-4 PH construction for resistance against shock and overload.
- ❖ Can be designed to fit your dimensional needs.
- ❖ Other capacities are available on request.

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, Engine Dynamometer, Automobile Testing
Alternators/pumps/gas & diesel turbine engines testing	Process Industries

Performance Specification

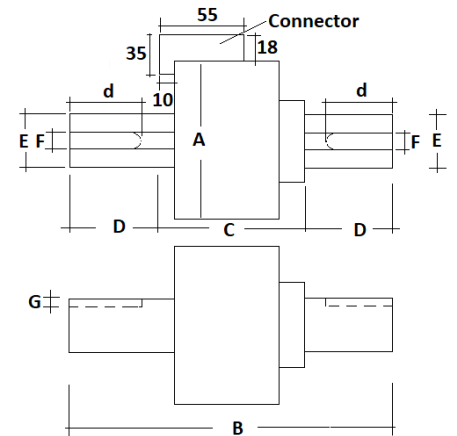
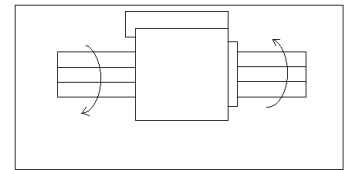
Standard Capacities in NM	See Table below
Excitation Voltage	10 VDC
Nominal Output	2m V / V
Non - Linearity	< ±0.2% FSO
Hysteresis	< ±0.1% FSO
Non-Repeatability	< ±0.1% FSO
Creep (30 minutes)	< ±0.3% FSO
Zero Balance	±1.0% FSO
Input Resistance	390 Ohms
Output Resistance	350 Ohms
Insulation Resistance (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	A	B	C	D - Appx.	d	E	F	G	Max. RPM & Rotational life
10, 20, 50, 100, 200	86	180	70	55	25	25	8	4	2500RPM, 20Millions
300, 500, 1000	100	200	55	72.5	40	40	12	5	2000RPM, 15Millions
2K, 3K, 5K	130	200	60	70	60	60	18	7	1500RPM, 10.5Millions
10K	160	240	72	84	75	75	20	7.5	1000RPM, 5Millions
15K	185	280	80	100	90	90	25	9	500RPM, 2.5Millions
20K, 30K, 40K	220	365	105	130	120	120	32	11	250RPM, 1Millions
50K	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
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(An ISO 9001:2015 Certified Company)

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