TTD-SS

DYNAMIC TORQUE TRANSDUCER WITH RPM-ANGLE SENSING



Description

TTD is CE Certified general purpose dynamic rotary torque sensor for accurate measurement of Torque and RPM OR Angle of rotation in rotating equipment. It is constructed from SS 17-4 PH material. This is strain gauge based sensor with full temperature compensation over 10~50 ºC. 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 10 KNM ranges. Torque sensing shaft is installed in ball journals and electrical signals are transferred through high quality, low noise slip ring and brush mechanism. This can be used at max. 2500 RPM only. **This is provided with Male shaft with key slot for locking at both ends. Digital instrument with Torque, RPM and power OR Angle of Rotation display can be offered.** TTD is available in wide variety of options: both ends shaft, both ends flange and combination of shaft & flange versions for dynamic torque measurements.

Applications

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

Key Features

- High accuracy available as per standard BS 7882:2017/DIN 51309, ASTM E2428-15a
- Complete Environmental Protection – Meets IP 65
- Stainless steel 17-4 PH construction for resistance against shock and overload
- Wide range of capacities from 0-20 NM to 0-10000 NM.
- Standardized output (2.0 mV/V ± 0.5) and customized output can be provided on request
- Calibration in mV/V/Ω
- Can be customized to suit customer's need

ADI ARTECH
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An ISO 9001:2015 Certified Company

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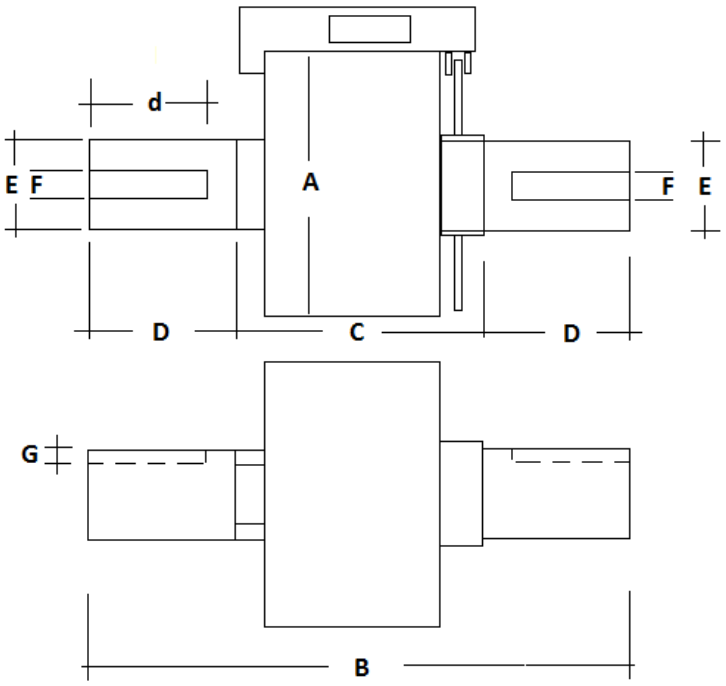
Technical Specifications

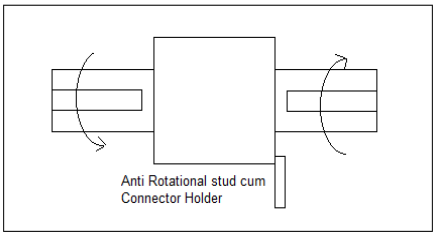
STANDARD CAPACITY	**20, 50, 100, 200, 300, 500, 1K, 2K, 3K, 5K, 10K**	**-NM**
PERFORMANCE	Accuracy value as per BS7882:2017/ DIN 51309 , ASTM E2428-15a	
	Non - Linearity	< ±0.2 % FSO
	Hysteresis	< ±0.1 % FSO
	Non-Repeatability	< ±0.1 % FSO
	Creep (30 minutes)	< ±0.3 % FSO
	Zero Balance	±1.0 % FSO
ELECTRICAL	Output	2.00 mV/V ± 0.5 (Customized Output available on request)
	Excitation Voltage	Maximum 15 VDC (Suggested 5VDc / 10VDc)
	Input Resistance	390 Ω (Ohms)
	Output Resistance	350 Ω (Ohms)
	Insulation Resistance	(100 VDC) > 1000 Mega Ω (Ohms)
STRUCTURE	Safe Overload Of Rated Capacity	150%
	Ultimate Overload of Rated Capacity	200%
	Allowable Side Load	50%
	Rotational Angular Deflection	< 0.2º at FSO
	Finish Product	Stainless Steel 17-4 PH
	As per IS/IEC 60529:2001	IP65 for Gauge Area
TEMP.	Operating Temperature	0ºC to 60ºC
	Compensated Temperature	10ºC to 50ºC
	Temperature Effect on Output	< 0.005 % FSO/ ºC
	Temperature Effect on Zero	< 0.0050 % FSO/ ºC

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Dimension (mm)



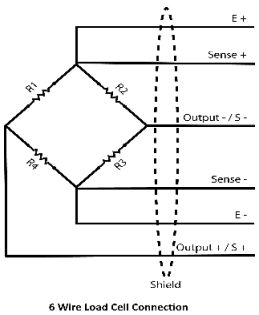


CAPACITY-NM	A	B	C	D	d	E	F	G	Max RPM/Rotational Life	Cable
20, 50, 100,200	86	180	110	35	25	25	8	4	2500 RPM, 20 Millions	5 Meter
300, 500, 1K	100	220	110	55	40	40	12	5	2000 RPM, 15 Millions	5 Meter
2K, 3K, 5K	130	280	140	70	60	60	18	7	1500 RPM, 10.5 Millions	5 Meter
10K	160	320	150	85	75	75	20	7.5	1000 RPM, 5 Millions	5 Meter

All dimensions are in mm

Specification are subject to change.

Electrical Termination



6 Wire Load Cell Connection

Excitation(+)	**Red**
Excitation(-)	**Black**
Signal(+)	**Green**
Signal(-)	**White**
RPM Ve (+)	**Yellow**
RPM Ve(-)	**Blue**
Shield	