TTS-SS

STATIC TORQUE TRANSDUCER



Description

CE Certified TTS-SS Static Reaction Torque Transducer is used in industrial & research applications where Torque is to be measured accurately. It is easily fitted in suitable test bench through key ways provided at both cylindrical shaft ends. It is constructed from stainless steel 17-4 PH material for ruggedness and harsh industrial applications. It is strain gauge based sensor with full temperature compensation over 10 to 50 ºC range. Flange mounted and Square Drive versions are available. **All of these sensors are also available for inline static torque measurements with slip Ring Mechanism or wireless non-contact types. Integrated measuring system for rotational speed or angle of rotation can be provided for gear testing or determining power of rotating machines.**

Applications

- Motor, Switches, Shaft & Axle torque measurement
- To measure operating Torque of Industrial Valve & actuators
- Automotive, Aerospace & offshore valves test rigs
- Torque measurement of Industrial Fastener

Key Features

- High accuracy available as per standard BS 7882:2017/DIN 51309, ASTM E2428-15a
- Axial & bending forces are compensated
- Complete Environmental Protection – Meets IP 65
- Stainless steel constructions for shock load and overload
- A high-temperature version can be provided on request
- Wide range of capacities from 20 NM to 50000 NM.
- Standardized output (2.0 ± 0.2%) and customized output can be provided on request
- Calibration in mV/V/Ω
- Can be **customized** to suit customer's need

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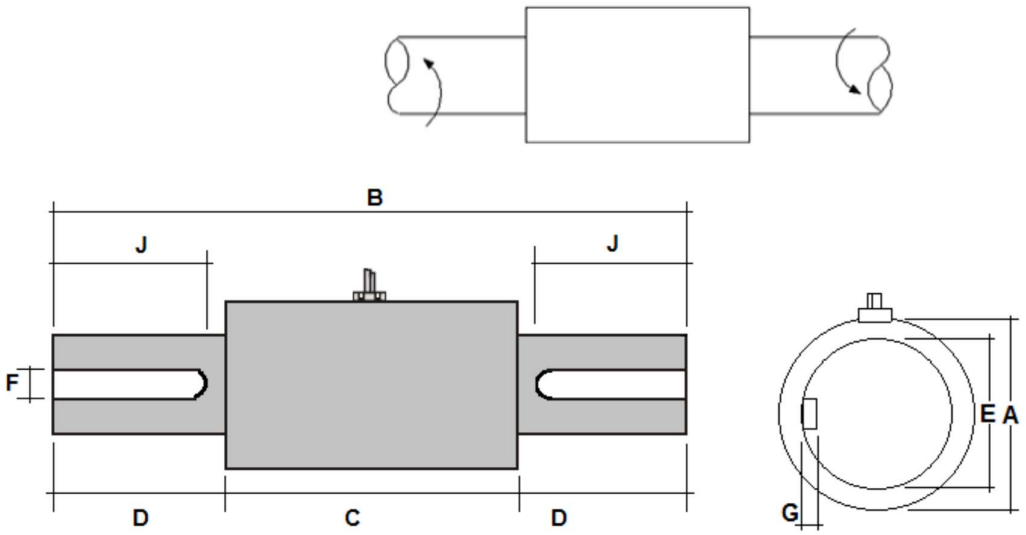
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Technical Specifications

STANDARD CAPACITY		**20, 50, 100, 200, 300, 500**	**NM**
		1, 2, 3, 5, 10, 15, 20, 30, 40, 50	**KNM**
PERFORMANCE	Accuracy value as per BS7882:2017/ DIN 51309 , ASTM E2428-15a		
	Non - Linearity	< ±0.1 % 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 ±0.2%	
	Excitation Voltage	Maximum 15 VDC (Suggested 5VDc / 10VDc)	
	Input Resistance	392 ± 15 Ω (Ohms)	
	Output Resistance	350 ± 3 Ω (Ohms)	
	Insulation Resistance	(100 VDC) > 1000 Mega Ω (Ohms)	
STRUCTURE	Safe Overload Of Rated Capacity	150%	
	Ultimate Overload of Rated Capacity	250%	
	Allowable Side Load	50%	
	Rotational Angular Deflection	< 0.4º 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	< 0.05 % FSO/ ºC	
	Temperature Effect on Zero	< 0.05 % FSO/ ºC	

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Dimension (mm)

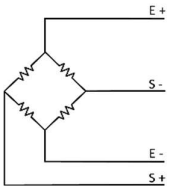


CAPACITY-NM	A-appx.	B	C-appx.	D-appx.	E-Ø	F	G	J	Cable
20, 50	26	65	35	15	20	6	3.5	15	5 Meter
100, 200	32	100	50	25	25	8	4	20	5 Meter
300, 500, 1K	47	150	54	48	40	12	5	40	5 Meter
2K, 3K, 5K	70	200	60	70	60	18	7	60	5 Meter
10K	84	240	72	84	75	20	7.5	75	5 Meter
15K	98	280	80	100	90	25	9	90	5 Meter
20K, 30K, 40K	130	365	105	130	120	32	11	120	5 Meter
50K	160	410	114	148	140	36	12	140	5 Meter

All dimensions are in mm.

Specification are Subject to Change.

Electrical Termination



Excitation(E+)	**Red**
Signal(S-)	**White**
Excitation(E-)	**Black**
Signal(S+)	**Green**
Shield	