TTS-SQ

STATIC REACTION SQUERE DRIVE TORQUE TRANSDUCER



Description

CE Certified TTS-SQ Torque Sensor used in industrial & research application where torque is to be measured accurately. It is easily fitted in suitable test bench through Square Drive ends-male/female. It is constructed from stainless steel 17-4 PH material for ruggedness and harsh industrial applications. Its design is strain gauge based with full temperature compensation over 10 to 50ºC range.

Applications

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

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 resistance against shock load and overload
- Wide range of capacities from 0-10 NM to 0-50000 NM.
- Standardized output (2.0±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
TRANSDUCERS PVT. LTD.
An ISO 9001:2015 Certified Company

www.adiartech.com|sales@adiartech.com adiartech@adiartech.com
917/1, GIDC MAKARPURA, GUJARAT, VADODARA – 390 010, INDIA

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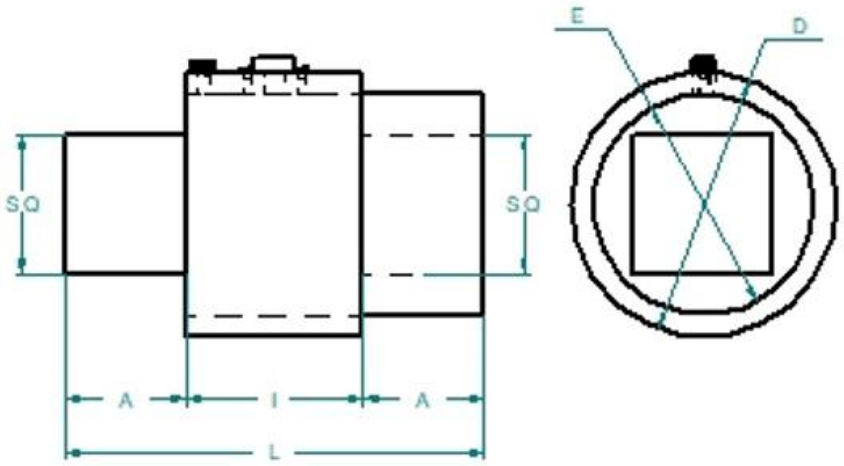
Technical Specifications

STANDARD CAPACITY-NM		**10, 20, 50, 100, 200, 300, 500, 1K, 1.5K, 2K, 3K, 5K, 10K, 20K, 30K, 50K**
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 ± 0.5 (Customized Output available on request)
	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	< 0.4 mm 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)

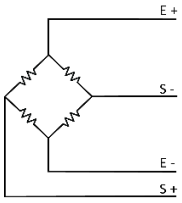


CAPACITY-NM	A	D-appx.	I	E-appx.	L	SQ	Cable
10, 20, 50, 100	15	33	40	32	70	12.7(½")	5 Meter
200, 300, 500	25	47	60	50	110	19.1(¾")	5 Meter
1K, 1.5K	30	55	80	50	140	25.4(1")	5 Meter
2K, 3K, 5K	40	72	95	70	175	38.1(1½")	5 Meter
10K	55	118	110	115	220	63.5(2½")	5 Meter
20K, 30K	70	142	130	140	270	76.2(3")	5 Meter
50K	80	182	170	180	330	88.9 (3½")	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	