TTS-F-SQ-F

FLANGE SQD-FEMALE STATIC REACTION TORQUE TRANSDUCER



Description

TTS-F-SQD-F static reaction torque transducer is CE Certified, flange mount with female SQ Drive at loading end. It is designed for industrial and research applications. It is constructed from Electro less Ni plated tool steel for harsh industrial applications. TTS-F-SQ-F is strain gauge based sensor with full temperature compensation over 10 to 50 ºC. It is compensated for axial and side loads for very good linearity and low hysteresis. It is very compact and easy to install into the applications. It is available from 0-10 NM to 0-50000 NM capacities to cover vide industrial applications. It is suitable for clock wise and anti-clockwise directions. This sensor can be supplied with factory calibrated instrument with display, computer interface etc.

Applications

- Actuator/valve/Electrical tool testing
- Axle/shaft torsion test
- Bearing friction measuring
- Testing of starters/slip rings/clutches/brakes
- Electric/hydraulic/pneumatic motors testing, Machine tool testing
- Alternators/pumps/gas, diesel, turbine engine testing
- Automobile testing of drive shaft and crank shaft torque
- Defense, Aerospace, R&D Establishments, Offshore test rigs, Automotive, Machine tools, Electrical and Engineering Industries.

Key Features

- High accuracy available as per standard BS 7882:2017/DIN 51309, ASTM E2428-15a
- Axial & bending forces are compensated for good accuracy
- Both end shaft or one end shaft and other end flange type combination can be supplied
- Complete Environmental Protection – Meets IP 65
- Electro less Nickel plated tool steel construction
- Wide range of capacities from 0-10 NM to 0-50000 NM.
- Standardized output (2.0 mV/V) and customized output can be provided on request
- Calibration in mV/V/Ω

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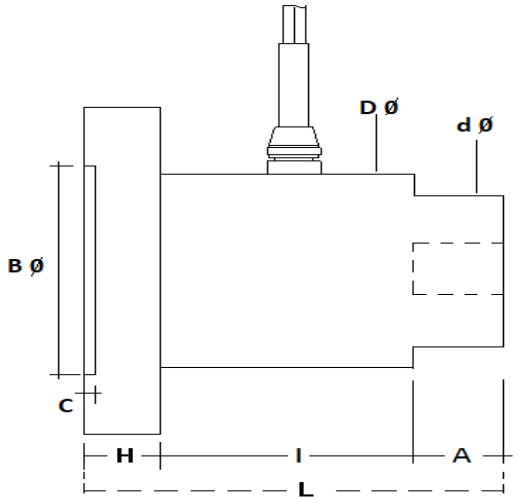
Technical Specifications

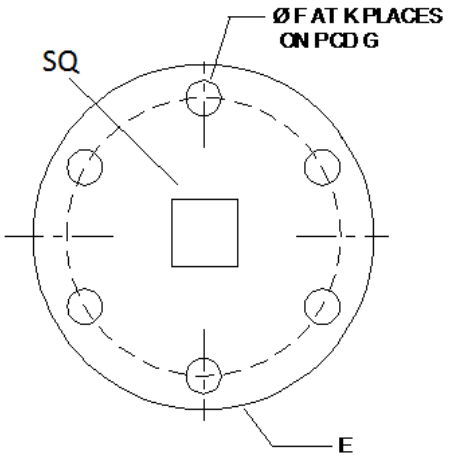
STANDARD CAPACITY(NM)		**10, 20, 50, 100, 200, 300, 500, 1K, 1.5K, 2K, 3K, 5K, 10K, 20K, 30K, 50K**
PERFORMANCE	Accuracy value as per BS7882:2017/ DIN 51309 , ASTM E2428-15a	
	Non - Linearity	< ±0.5 % FSO
	Hysteresis	< ±0.2 % FSO
	Non-Repeatability	< ±0.1 % FSO
	Creep (30 minutes)	< ±0.3 % FSO
	Zero 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	Electro less Nickel plated tool steel / 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	< 0.0015 % FSO/ ºC
	Temperature Effect on Zero	< 0.0020 % FSO/ ºC

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Dimension (mm)



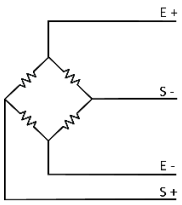


CAPACITY-NM	A	B-ϕ	C	d-ϕ	D-ϕ	E-ϕ	F × K PLCS.	G-PCD	H	I	L	SQ	Cable
10, 20, 50, 100	15	40	2.5	32	47	78	8.1 × 6	64	10	40	65	12.7(½")	5 Meter
200, 300, 500	25	50	2.5	39	47	100	8.1 × 8	80	12	43	80	19.1(¾")	5 Meter
1K, 1.5K	30	60	2.5	60	68	120	10.2 × 8	100	15	55	100	25.4(1")	5 Meter
2K, 3K, 5K	40	70	2.5	90	98	150	12.7 × 8	125	20	90	150	38.1(1½")-2K, 50.8(2")-3K,5k	5 Meter
10K	60	110	5.0	110	118	190	16.5 × 8	152	22	93	170	63.5(2 ½")	5 Meter
20K, 30K	80	150	5.0	160	168	240	19.5 × 8	203	25	90	185	76.2(3")-20K, 88.9(3½")-30K	5 Meter
50K	80	170	5.0	180	190	285	24.5 × 8	247	25	90	200	89.9(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	