



Model T11 Bearingless Torque Transducer

Why the Interface model T11 Bearingless Torque Transducer is the best in class:

- Capacities from 0.005 to 150 Nm (0.04 to 1,327 lb-in)
- Bearingless
- High speed - to 30K RPM
- ±5 VDC output
- Very low range
- Eliminates bearing friction effects
- 10 kHz sample rate
- 12-28 VDC supply



T11 Bearingless Torque Transducer

OPTIONS

- +10 VDC output
- Speed output - 6 pulse TTL, 1-track
- Special balancing for RPM to 40K

SPECIFICATIONS

ACCURACY – (MAX ERROR)

- Combined Error-% FS ±0.1
- Nonrepeatability-% ±0.02

TEMPERATURE

- Effect on Zero-% RO/°C ±0.02
- Effect on Output-%/°C ±0.01
- Rated Range-°C +5 to +45
- Operating Range-°C +0 to +60

ELECTRICAL

- Torque Output-VDC ±5
- Bandwidth, Hz 3 kHz-3dB
- Calibration Signal-% RO 100
- Supply Voltage-VDC..... 12 to 28
- Supply Current-mA 60
- Electrical Connection 8-pin

MECHANICAL

- Safe Overload-% RO 200
- Cyclic Load Rating-% RO..... ±70 peak
- Max Speed - rpm 30K - see table
- Shaft..... Stainless steel
- Housing Aluminum

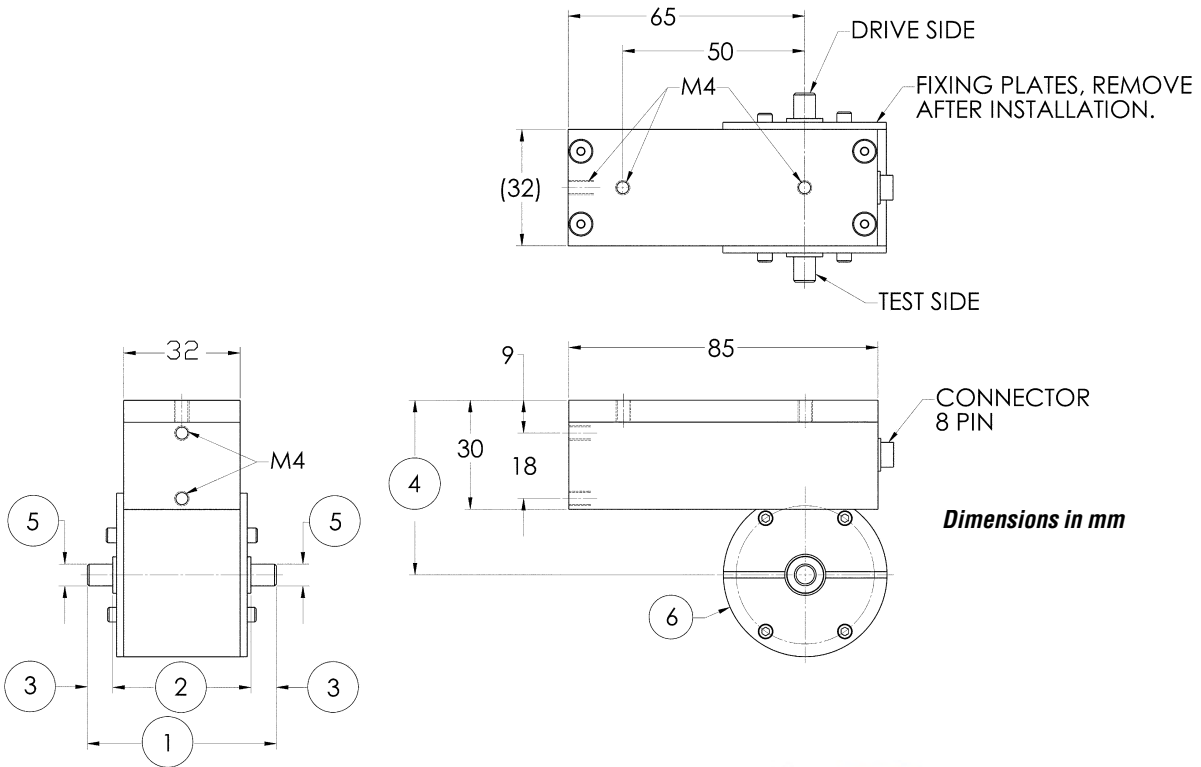
T11 BEARINGLESS TORQUE TRANSDUCER PERFORMANCE PARAMETERS

CAPACITY (Nm)	MAX RPM	SPRINGRATE (Nm/rad)	MOMENT OF INERTIA, J (Kgxm ²)		MAX. THRUST LOAD (N)
			Drive Side	Test Side	
0.005	20,000	2.4x10 ⁻¹	7.5x10 ⁻⁷	1.1x10 ⁻⁸	3
0.01	20,000	4.7x10 ⁻¹	7.5x10 ⁻⁷	1.1x10 ⁻⁸	3
0.02	30,000	5.4x10 ⁻¹	7.6x10 ⁻⁷	1.3x10 ⁻⁸	10
0.05	30,000	5.4x10 ⁻¹	7.6x10 ⁻⁷	1.3x10 ⁻⁸	10
0.1	30,000	5.4x10 ⁻¹	7.6x10 ⁻⁷	1.3x10 ⁻⁸	15
0.2	30,000	5.4x10 ⁻¹	7.6x10 ⁻⁷	1.3x10 ⁻⁸	20
0.5	30,000	2.9	7.6x10 ⁻⁷	1.3x10 ⁻⁸	30
1	30,000	2.9	7.6x10 ⁻⁷	1.3x10 ⁻⁸	40
2	30,000	5.0x10 ²	9.1x10 ⁻⁷	8.3x10 ⁻⁸	50
5	30,000	5.0x10 ²	9.1x10 ⁻⁷	8.3x10 ⁻⁸	50
10	30,000	5.8x10 ²	9.7x10 ⁻⁷	1.5x10 ⁻⁷	50
20	30,000	4.9x10 ³	1.2x10 ⁻⁵	3.6x10 ⁻⁶	100
50	20,000	9.3x10 ³	1.2x10 ⁻⁵	3.9x10 ⁻⁶	200
100	20,000	9.3x10 ³	1.2x10 ⁻⁵	3.9x10 ⁻⁶	200
150	20,000	1.1x10 ⁴	1.2x10 ⁻⁵	4.2x10 ⁻⁶	200

T11 Bearingless Torque Transducer - Capacities 0.005 to 150 Nm

DIMENSIONS

Nominal Torque										
Capacity (Nm)	0.005, 0.01		0.02, 0.05, 0.1, 0.2, 0.5, 1		2, 5		10		20, 50 100, 150	
Equivalent (lb-in)	0.04, 0.62		0.18, 0.44, 0.85, 1.77, 4.43, 8.85		17.7, 44.3		88.5		177, 443 885, 1.33K	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
①	1.89	48	2.05	52	2.68	68	2.68	68	4.80	122
②	1.50	38	1.50	38	1.50	38	1.50	38	1.97	50
③	0.20	5	0.28	7	0.59	15	0.59	15	1.42	36
④	1.89	48	1.89	48	1.89	48	1.89	48	2.09	53
⑤	0.1573/ 0.1570	4g6	0.2361/ 0.2357	6g6	0.3148/ 0.3144	8g6	0.3935/ 0.3931	10g6	0.7084/ 0.7080	18g6
⑥	1.77	45	1.77	45	1.77	45	1.77	45	2.34	59.5



ELECTRICAL CONNECTION

8-PIN T11 ELECTRICAL CONNECTION		
Pin	Function	Description
1	Supply (+)	12-28 VDC
2	Supply (GND)	0 VDC
3	Signal (+)	±5 VDC
4	Signal (GND)	0 VDC
5	Cal. Control	L < 2.0 / H > 3.5 V
6	Option Angle A	TTL
7	Option Angle B	TTL
8	NC	-



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