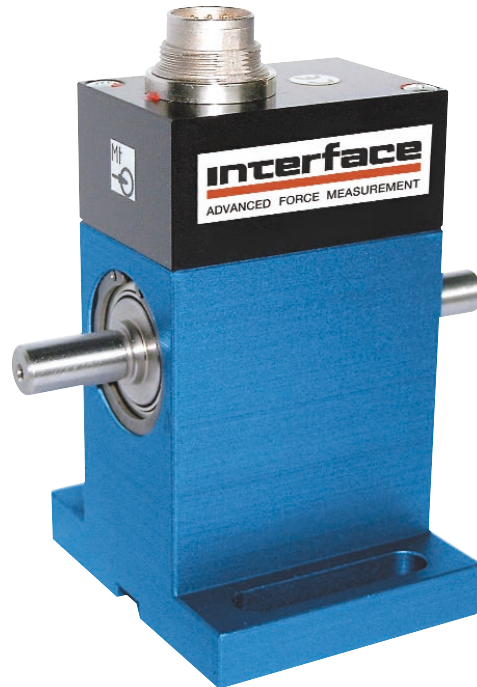


Model T3 Precision-Pedestal Rotary Torque Transducer

Why the Interface model T3 Precision-Pedestal Rotary Torque Transducer is the best in class:

- Capacities from 0.1 to 20K Nm (0.88 to 177K lb-in)
- Integral mounting base
- ± 5 VDC output
- Digital electronics
- Stainless steel shaft
- 12 to 28 VDC supply
- Contactless
- 10 kHz sample rate



T3 Precision-Pedestal Rotary Torque Transducer

OPTIONS

Speed & Angle Measurement - 360 Pulse TTL, 2-Tracks 90° Offset, Available on capacities up to 1,000 Nm only
 Speed Output - 60 Pulse TTL, 1-Track, Available on capacities 2,000 Nm & above
 ± 10 V Torque Output
 RS485
 High RPM
 Keyed Shafts
 SAE Sized Shafts

SPECIFICATIONS

ACCURACY – (MAX ERROR)

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

TEMPERATURE

Effect on Zero-% RO/ $^{\circ}$ C ± 0.02
 Effect on Output-%/ $^{\circ}$ C ± 0.01
 Rated Range- $^{\circ}$ C+5 to +45
 Operating Range- $^{\circ}$ C0 to +60

ELECTRICAL

Output-VDC ± 5
 Bandwidth, Hz3 kHz-3dB
 Calibration Signal-% RO100
 Supply Voltage-VDC.....12 to 28
 Supply Current-mA60
 Electrical Connection12-pin

MECHANICAL

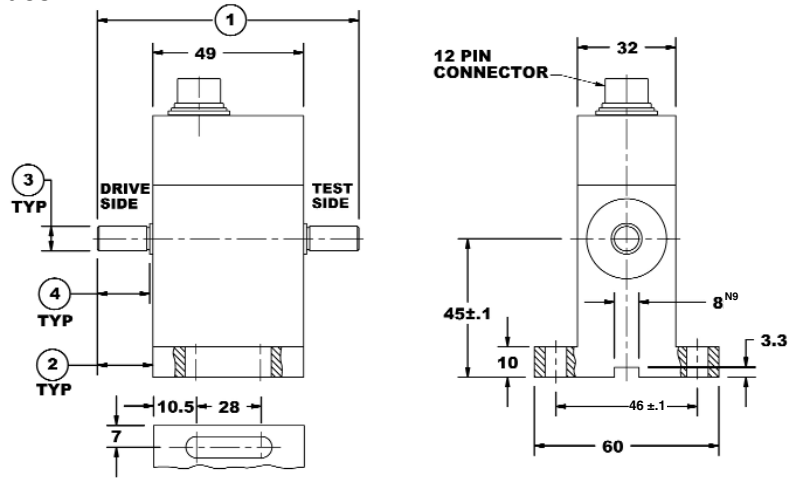
Safe Overload-% RO200
 Cyclic Load Rating-% RO..... ± 70 peak
 Max Speed - rpmVaries with capacity, see table

Shaft.....Stainless steel
 HousingAluminum

Model T3 Precision-Pedestal Rotary Torque Transducer -
Capacities 0.1 to 1 Nm

DIMENSIONS

Nominal Torque				
Capacity (Nm)	0.1, 0.2		0.5, 1	
Equivalent (lb-in)	0.88, 1.77		4.43, 8.85	
	inch	mm	inch	mm
①	3.35	85	3.35	85
②	0.71	18	0.71	18
③	0.3148/ 0.3144	8g6	0.3148/ 0.3144	8g6
④	0.67	17	0.67	17

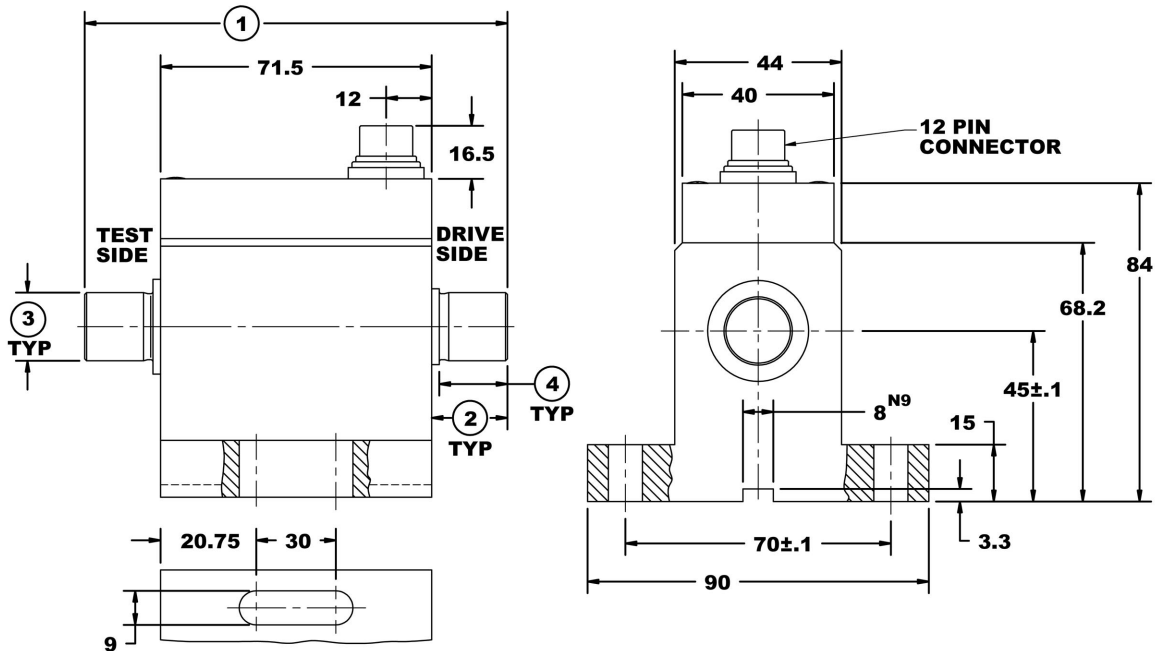


Dimensions in mm

Model T3 Precision-Pedestal Rotary Torque Transducer - Capacities 2 to 100 Nm

DIMENSIONS

Nominal Torque								
Capacity (Nm)	2, 5		10, 15		20, 30		50, 100	
Equivalent (lb-in)	17.7, 44.3		88.5, 133		177, 265		443, 885	
	inch	mm	inch	mm	inch	mm	inch	mm
①	4.23	107.5	4.23	107.5	4.39	111.5	5.81	147.5
②	0.71	18	0.71	18	0.79	20	1.50	38
③	0.3148/ 0.3144	8g6	0.3935/ 0.3931	10g6	0.7087/ 0.7082/	18 h6	0.7087/ 0.7082/	18 h6
④	0.67	17	0.67	17	0.71	18	1.42	36



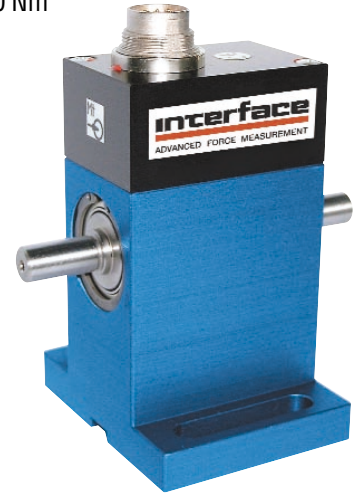
Dimensions in mm

Model T3 Precision-Pedestal Rotary Torque Transducer

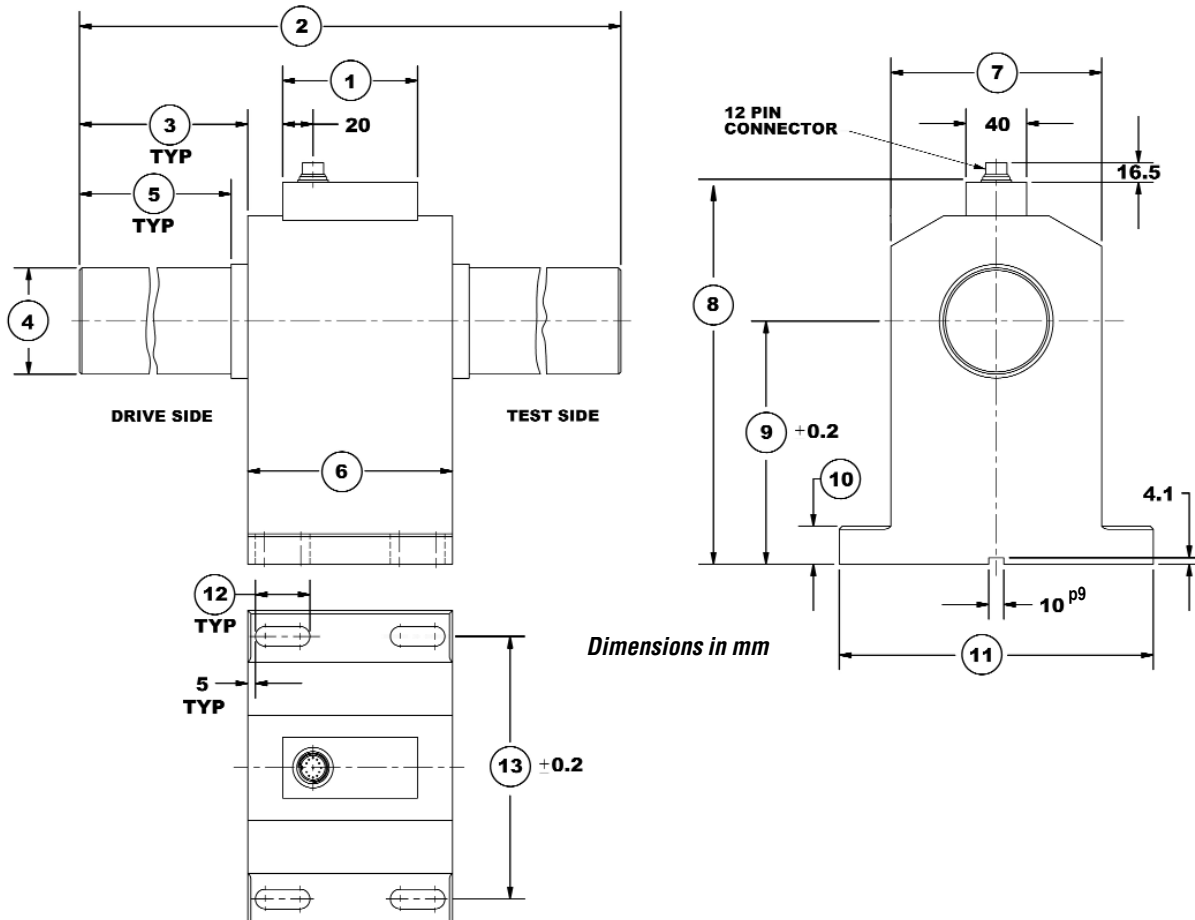
Model T3 Precision-Pedestal Rotary Torque Transducer - Capacities 200 to 20,000 Nm

DIMENSIONS

Capacity (Nm) Equivalent (lb-in)	Nominal Torque							
	200, 500		1K		2K, 5K		10K, 20K	
	1.77K, 4.43K		8.85K		17K, 44.3K		85.5K, 177K	
	inch	mm	inch	mm	inch	mm	inch	mm
①	3.50	89	3.50	89	3.50	89	3.50	89
②	8.54	217	10.31	262	14.84	377	18.50	470
③	1.71	43.5	2.60	66	4.76	121	5.51	140
④	1.2595/ 1.2598	32 h6	1.9685/ 1.9675	50 h7	2.7559/ 2.7547	70 h7	4.3307/ 4.3293	110 h7
⑤	1.50	38	2.28	58	4.33	110	4.72	120
⑥	5.12	130	5.12	130	5.31	135	7.48	190
⑦	4.53	115	4.63	115	5.47	139	8.27	210
⑧	7.50	190.4	7.50	190.4	9.90	251.5	12.52	318
⑨	4.41	112	4.41	112	6.30	160	8.46	215
⑩	0.79	20	0.79	20	0.98	25	1.57	40
⑪	6.89	175	6.89	175	8.15	207	11.81	300
⑫	1.18	30	1.18	30	1.42	36	1.77	45
⑬	5.71	145	5.71	145	6.81	173	10.24	260



T3 Precision-Pedestal Rotary Torque Transducer



T3 PRECISION-PEDESTAL ROTARY TORQUE TRANSDUCER PERFORMANCE PARAMETERS

CAPACITY (Nm)	MAX RPM		SPRINGRATE (Nm/rad)	MOMENT OF INERTIA, J (Kgxm ²)		MAX THRUST LOAD (N)
	Standard	Special		Drive Side	Test Side	
0.03	10,000	15,000	5.8x10 ⁻¹	1.6x10 ⁻⁶	1.7x10 ⁻⁷	10
0.05	10,000	15,000	5.8x10 ⁻¹	1.6x10 ⁻⁶	1.7x10 ⁻⁷	10
0.1	10,000	15,000	1.0	2.0x10 ⁻⁶	2.8x10 ⁻⁷	15
0.2	10,000	15,000	1.0	2.0x10 ⁻⁶	2.8x10 ⁻⁷	15
0.5	10,000	15,000	9.9	2.0x10 ⁻⁶	2.8x10 ⁻⁷	30
1	10,000	15,000	9.9	2.0x10 ⁻⁶	2.8x10 ⁻⁷	40
2	8,000	12,000	4.4x10 ²	1.0x10 ⁻⁵	8.1x10 ⁻⁶	50
5	8,000	12,000	4.4x10 ²	1.0x10 ⁻⁵	8.1x10 ⁻⁶	50
10	8,000	12,000	1.4x10 ³	1.0x10 ⁻⁵	8.2x10 ⁻⁶	50
15	8,000	12,000	1.4x10 ³	1.0x10 ⁻⁵	8.2x10 ⁻⁶	100
20	8,000	12,000	4.5x10 ³	1.2x10 ⁻⁵	9.9x10 ⁻⁶	300
30	8,000	12,000	4.8x10 ³	1.3x10 ⁻⁵	9.9x10 ⁻⁶	1,000
50	6,000	12,000	6.1x10 ³	1.3x10 ⁻⁵	1.1x10 ⁻⁵	1,600
100	6,000	12,000	9.7x10 ³	1.4x10 ⁻⁵	1.2x10 ⁻⁵	2,600
200	4,000	7,000	9.2x10 ⁴	1.3x10 ⁻³	8.0x10 ⁻⁴	3,200
500	4,000	7,000	9.2x10 ⁴	1.3x10 ⁻³	8.0x10 ⁻⁴	7,500
1,000	4,000	7,000	2.8x10 ⁵	1.7x10 ⁻³	1.2x10 ⁻³	10,000
2,000	3,500	5,500	7.2x10 ⁵	5.3x10 ⁻³	4.3x10 ⁻³	18,000
5,000	3,500	5,500	8.0x10 ⁵	5.4x10 ⁻³	4.3x10 ⁻³	32,000
10,000	3,000	3,500	3.1x10 ⁶	4.1x10 ⁻²	3.6x10 ⁻²	125,000
20,000	3,000	3,500	3.7x10 ⁶	4.1x10 ⁻²	3.7x10 ⁻²	200,000

ELECTRICAL CONNECTION

Pin	12-PIN T3		12-PIN T3 RS485 OPTION	
	Function	Description	Function	Description
A	NC	-	NC	-
B	Option Angle B	TTL	Option Angle B	TTL
C	Signal (+)	±5 VDC	NC	-
D	Signal (GND)	0 VDC	NC	-
E	Supply (GND)	0 VDC	Supply (GND)	0 VDC
F	Supply (+)	12-28 VDC	Supply (+)	12-28 VDC
G	Option Angle A	TTL	Option Angle A	TTL
H	NC	-	NC	-
J	NC	-	RS485 Option	RS485 (B)
K	Cal. Control	L < 2.0 / H > 3.5 V	NC	-
L	NC	-	RS485 Option	RS485 (A)
M	Housing		Housing	