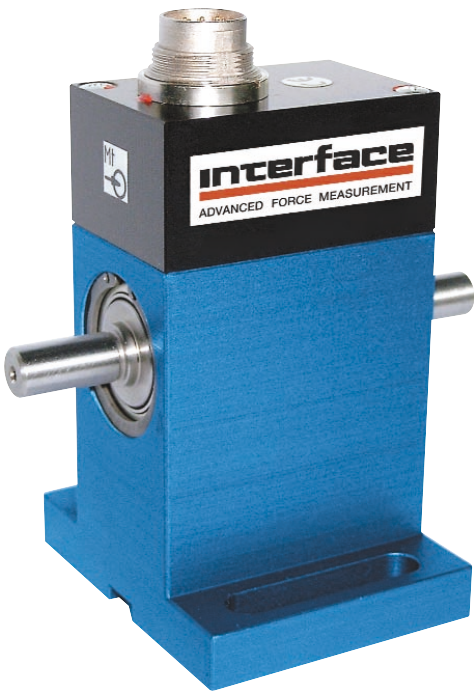


Model T3 Precision Rotary Torque Transducer

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

- Capacities from 0.03 Nm to 20K Nm (0.26 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 Rotary Torque Transducer

OPTIONS

Angle measurement - 360 pulse TTL,
2-tracks 90° offset, available on capacities
up to 1,000 Nm only

± 10 V torque output

Speed output - 60 pulse TTL, 1-track,
available on capacities 2,000 Nm & above

RS485

High RPM

Keyed shafts

SAE sized shafts

High torque capacities available consult
factory

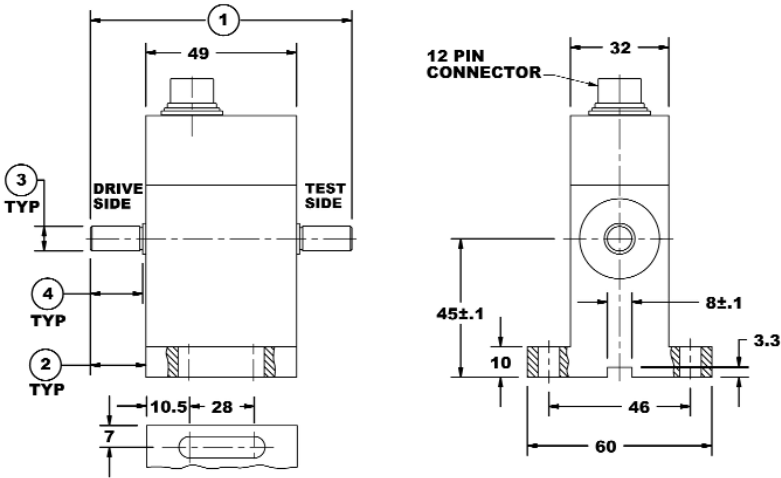
SPECIFICATIONS

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	12-pin
MECHANICAL	
Safe Overload–% RO	200
Cyclic Load Rating–% RO.....	± 70 peak
Max Speed - rpm	Varies with capacity, see table
Shaft.....	Stainless steel
Housing	Aluminum

Model T3 Precision Rotary Torque Transducer - Capacities 0.03 to 1 Nm

DIMENSIONS

Nominal Torque						
Capacity (Nm)	0.03, 0.05		0.1, 0.2		0.5, 1	
Equivalent (lb-in)	0.26, 0.44		0.85, 1.77		4.43, 8.85	
	inch	mm	inch	mm	inch	mm
①	2.56	65	3.35	85	3.35	85
②	0.31	8	0.71	18	0.71	18
③	0.2361/ 0.2357	6g6	0.3148/ 0.3144	8g6	0.3148/ 0.3144	8g6
④	0.28	7	0.67	17	0.67	17

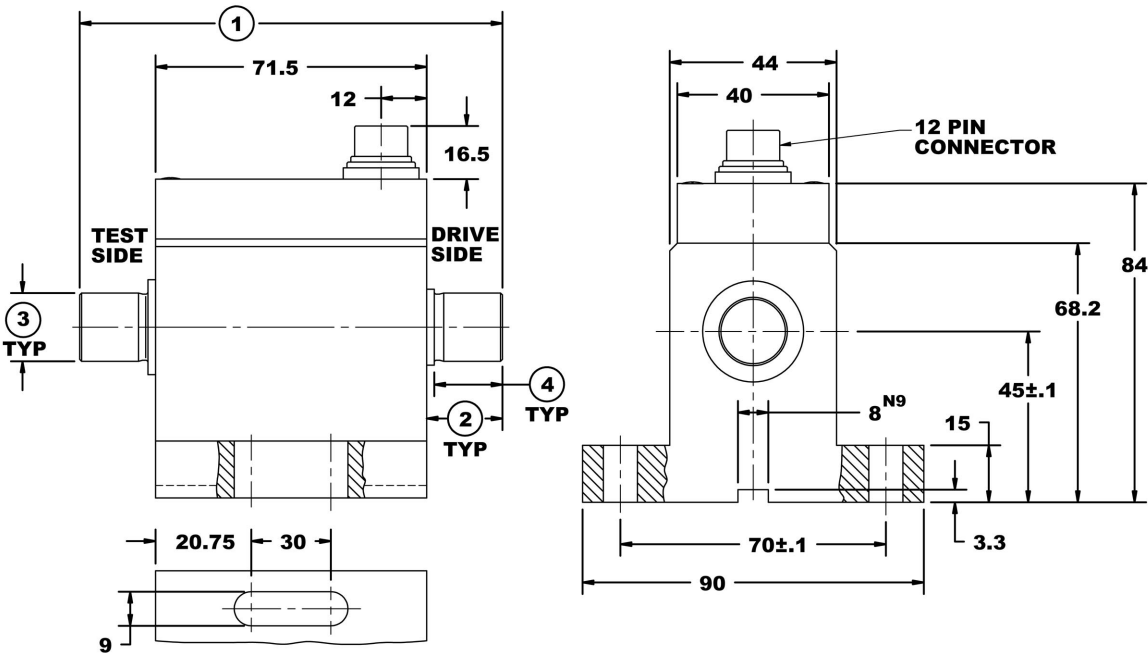


Dimensions in mm

Model T3 Precision 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		8.85, 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

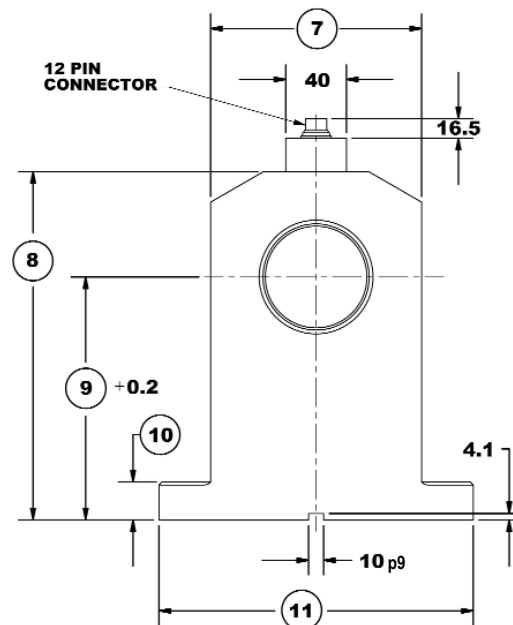
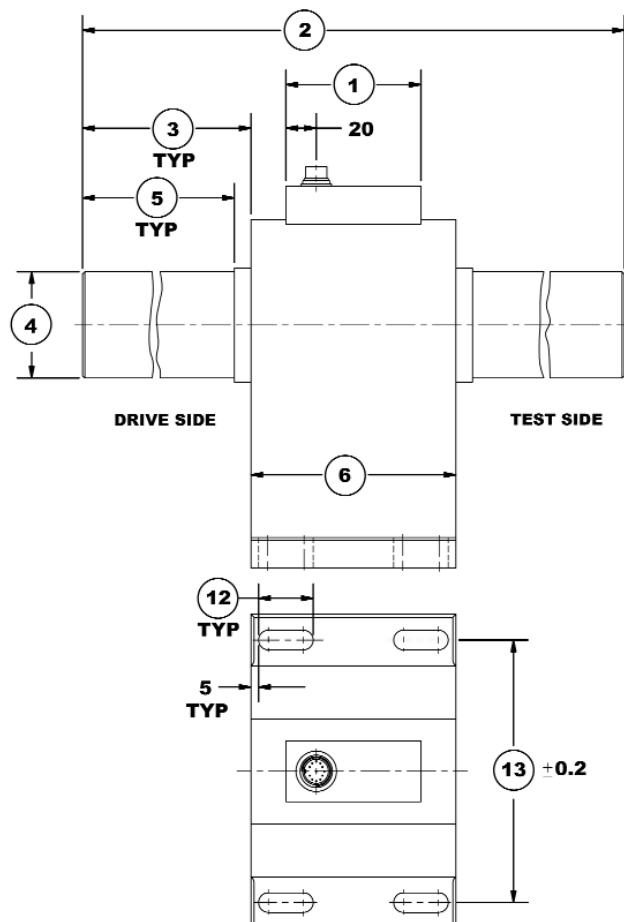
Model T3 Precision Rotary Torque Transducer - Capacities 200 to 20,000 Nm

DIMENSIONS

	Nominal Torque							
Capacity (Nm)	200, 500		1K		2K, 5K		10K, 20K	
Equivalent (lb-in)	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 Rotary Torque Transducer



Dimensions in mm

T3 PRECISION ROTARY TORQUE TRANSDUCER PERFORMANCE PARAMETERS

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