

Model T6 Dual Range Precision Rotary Torque Transducer

Why the Interface model T6 Dual Range Precision Rotary Torque Transducer is the best in class:

- Dual range capacities - 10:1 ratio (10/1 to 10K/1K Nm) (8.85/88.5 to 88.5K to 8.85K lb-in)
- ± 5 VDC output
- Stainless steel shaft
- 5 kHz sample rate
- 12 to 28 VDC supply
- Digital electronics
- Contactless



T6 Dual Range 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 speed to 12,000 RPM

Keyed shafts

SAE sized shafts

High torque capacities available consult
factory

SPECIFICATIONS

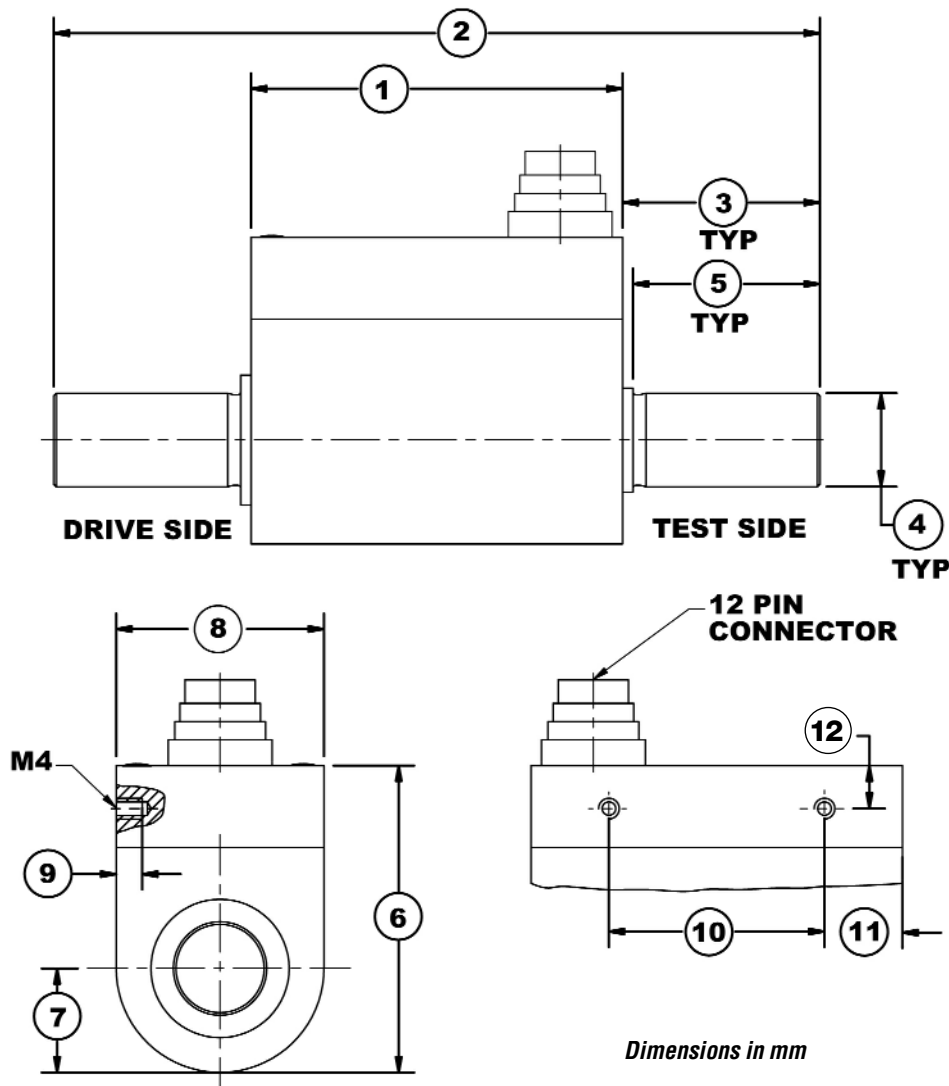
ACCURACY – (MAX ERROR)	
Combined Error–% FS	± 0.1
Nonrepeatability–%	± 0.02
TEMPERATURE	
Effect on Zero–% RO/°C	± 0.02
Effect on Output–%/°C	± 0.01
Rated Range–°C	+5 to +45
Operating Range–°C	0 to +60
ELECTRICAL	
Torque Output–VDC	± 5
Bandwidth, Hz	3 kHz-3dB
Calibration Signal–% RO	100
Speed Output - puls/rev.	60
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 T6 Dual Range Precision Rotary Torque Transducer-

Capacities 10/1 to 500/50 Nm

DIMENSIONS

Nominal Dual Range Torque (Range 1/Range 2)														
Capacity (Nm)	10/1		20/2		30/3		50/5		100/10		200/20		500/50	
Equivalent (lb-in)	88.5/8.85		177/17.7		265/26.5		443/44.3		885/88.5		177K/177		4.43K/443	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
①	2.81	71.5	2.81	71.5	2.81	71.5	2.81	71.5	2.81	71.5	3.17	80.5	3.17	80.5
②	4.39	111.5	4.39	111.5	4.39	111.5	5.81	147.5	5.81	147.5	6.28	159.5	6.28	159.5
③	0.08	2	0.08	2	0.08	2	0.08	2	0.08	2	0.06	1.5	0.06	1.5
④	0.71	18	0.71	18	0.71	18	0.71	18	0.71	18	1.26	32	1.26	32
⑤	0.71	18	0.71	18	0.71	18	1.42	36	1.42	36	1.50	38	1.50	38
⑥	2.68	68.2	2.68	68.2	2.68	68.2	2.68	68.2	2.68	68.2	3.87	98.2	3.87	98.2
⑦	0.79	20	0.79	20	0.79	20	0.79	20	0.79	20	1.14	29	1.14	29
⑧	1.57	40	1.57	40	1.57	40	1.57	40	1.57	40	2.40	61	2.40	61
⑨	0.20	5	0.20	5	0.20	5	0.20	5	0.20	5	0.20	5	0.20	5
⑩	1.63	41.5	1.63	41.5	1.63	41.5	1.63	41.5	1.63	41.5	1.16	29.5	1.16	29
⑪	0.59	15	0.59	15	0.59	15	0.59	15	0.59	15	1.02	26	1.02	26
⑫	0.69	17.5	0.69	17.5	0.69	17.5	0.69	17.5	0.69	17.5	1.14	29	1.14	29



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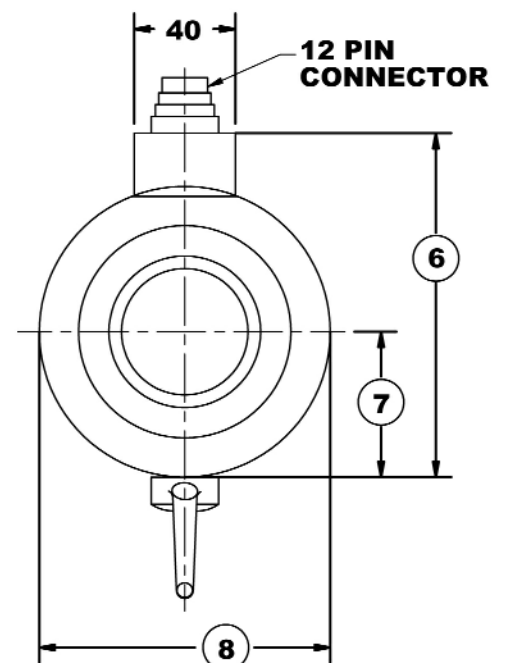
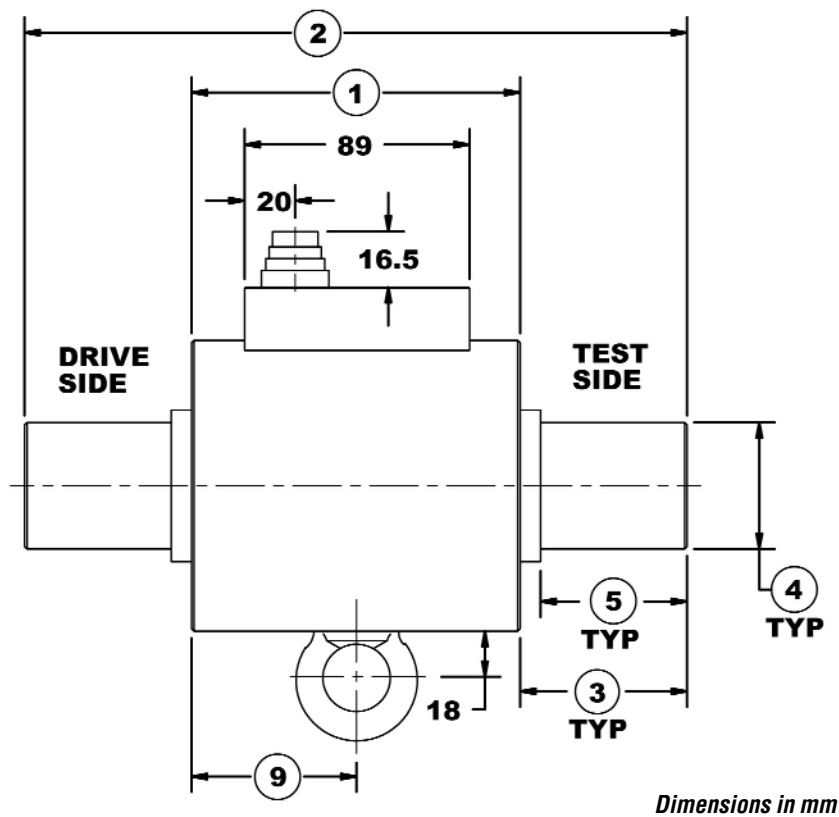
Capacities 1K/100 to 10K/1K Nm

DIMENSIONS

Nominal Dual Range Torque (Range 1/Range 2)								
Capacity (Nm)	1K/100		2K/200		5K/500		10K/1K	
Equivalent (lb-in)	8.85K/885		17.7K/1.77K		44.3K/4.43K		88.5K/8.85K	
	inch	mm	inch	mm	inch	mm	inch	mm
①	5.12	130	5.31	135	5.31	135	6.69	170
②	10.31	262	14.84	377	14.84	377	18.50	470
③	2.60	66	4.76	121	4.76	121	5.51	140
④	1.97	50	2.76	70	2.76	70	4.33	110
⑤	2.28	58	4.33	110	4.33	110	4.72	120
⑥	5.81	147.5	6.79	172.5	6.79	172.5	9.47	240.5
⑦	2.26	57.5	2.74	69.5	2.74	69.5	4.09	104
⑧	4.53	115	5.47	139	5.47	139	8.19	209
⑨	2.58	65.5	2.66	67.5	2.66	67.5	3.74	95
⑩	0.71	18	0.71	18	0.71	18	0.71	18
⑪	3.50	89	3.50	89	3.50	89	3.50	89



**T6 Dual Range Precision
Rotary Torque Transducer**



T6 DUAL RANGE PRECISION ROTARY TORQUE TRANSDUCER PERFORMANCE PARAMETERS

CAPACITY (Nm) (Range 1/ Range 2)	MAX RPM		SPRINGRATE (Nm/rad)	MOMENT OF INERTIA, J (Kgxm ²)		MAX THRUST LOAD (N)
	Standard	Special		Drive Side	Test Side	
10/1	8,000	15,000	8.3x10 ²	1.1x10 ⁻⁵	9.8x10 ⁻⁶	50
20/2	8,000	15,000	8.3x10 ³	1.1x10 ⁻⁵	9.8x10 ⁻⁶	300
30/3	6,000	15,000	8.3x10 ³	1.1x10 ⁻⁵	9.8x10 ⁻⁶	1,000
50/5	6,000	15,000	5.4x10 ³	1.3x10 ⁻⁵	1.1x10 ⁻⁵	1,600
100/10	6,000	12,000	5.4x10 ³	1.3x10 ⁻⁵	1.1x10 ⁻⁵	2,600
200/20	6,000	12,000	3.4x10 ⁴	1.1x10 ⁻⁴	8.4x10 ⁻⁵	3,200
500/50	5,000	10,000	3.4x10 ⁴	1.1x10 ⁻⁴	8.4x10 ⁻⁵	7,500
1,000/100	4,000	7,000	2.0x10 ⁵	1.6x10 ⁻³	1.1x10 ⁻³	10,000
2,000/200	3,500	5,500	5.1x10 ⁵	5.3x10 ⁻³	4.2x10 ⁻³	18,000
5,000/500	3,500	5,500	7.2x10 ⁵	5.3x10 ⁻³	4.3x10 ⁻³	32,000
10,000/1,000	3,000	5,000	3.1x10 ⁶	4.1x10 ⁻²	3.6x10 ⁻²	125,000
20,000/2,000	3,000	5,000	3.7x10 ⁶	4.1x10 ⁻²	3.7x10 ⁻²	200,000

ELECTRICAL CONNECTION

12-PIN T6 DUAL RANGE		
Pin	Function	Description
A	NC	-
B	Option Angle B	TTL
C	Signal (+)	+5 VDC
D	Signal (GND)	0 VDC
E	Supply (GND)	0 VDC
F	Supply (+)	12-28 VDC
G	Option Angle A	TTL
H	Signal 2 (+)	+5 VDC
J	NC	-
K	Cal. Control	L < 2.0 / H > 3.5 V
L	NC	-
M	Shield	Transducer Housing