



# Model TS12 Shaft Style Reaction Torque Transducer

Why the Interface model TS12 Shaft Style Torque Transducer is the best in class:

- Capacities from 0.005 to 20K Nm (0.04 to 177K lb-in)
- Stainless steel shafts
- Compact



TS12 Shaft Style Torque Transducer

## OPTIONS

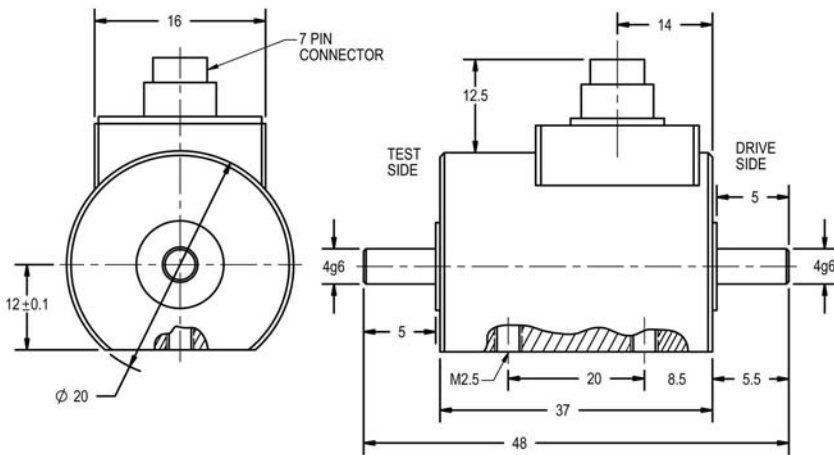
100 % control signal (RCAL)

**TS12 Shaft Style Reaction Torque Transducer -**  
Capacities 0.005, 0.01 & 0.02 Nm

## DIMENSIONS

Nominal Torque			
Capacity (Nm)	0.005	0.01	0.02
Equivalent (lb-in)	.044	.089	.177

See Drawing



Dimensions in mm

## 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 ..... -15 to +55

### ELECTRICAL

Torque Output-mV/V  
0.005 Nm to 0.1 Nm ..... 0.5  
0.2 Nm to 5,000 Nm ..... 0.8  
10K Nm to 20K Nm ..... 1.5  
Excitation Voltage-VDC MAX ..... 12  
Bridge Resistance-Ohm ..... 1,000  
Electrical Connection ..... 6 or 7 pin

### MECHANICAL

Safe Overload-% RO  
0.005 Nm to 0.1 Nm ..... 300  
0.2 Nm to 5K Nm ..... 200  
10K Nm to 20K Nm ..... 150  
Cyclic Load Rating-% RO  
0.005 Nm to 0.1 Nm ..... ±80 peak  
0.2 Nm to 20K Nm ..... ±70 peak  
Shaft..... Stainless steel  
Housing ..... Aluminum

## ELECTRICAL CONNECTION

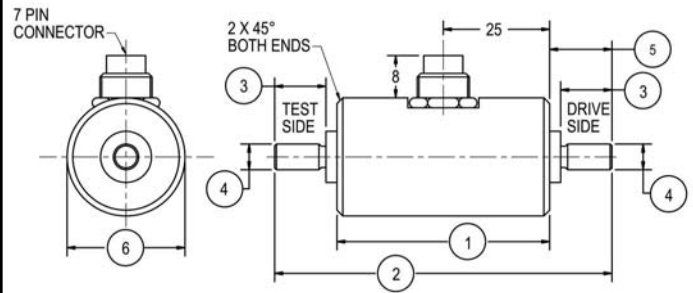
6-PIN TS12 ELECTRICAL CONNECTION	
Pin	Function
1	Excitation (-)
2	Excitation (+)
3	Shield
4	Signal (+)
5	Signal (GND)
6	Cal. Control (Option) Connect to Pin 2

7-PIN TS12 ELECTRICAL CONNECTION	
Pin	Function
1	Excitation (-)
2	Excitation (+)
3	Shield
4	Signal (+)
5	Signal (GND)
6	Cal. Control (Option) Connect to Pin 2
7	NC

**TS12 Shaft Style Reaction Torque Transducer - Capacities 0.03 to 15 Nm**

**DIMENSIONS**

Nominal Torque						
Capacity (Nm)	0.03, 0.05		0.1, 0.2, 0.3, 0.5, 1, 2, 5		10, 15	
Equivalent (lb-in)	0.26, 0.44		0.85, 1.77, 2.66, 4.43, 8.85, 17.7, 44.3		8.85, 133	
	inch	mm	inch	mm	inch	mm
①	1.89	48	1.89	48	1.89	48
②	2.56	65	3.35	85	3.35	85
③	0.28	7	0.67	17	0.67	17
④	0.2361/ 0.2357	6 g6	0.3148/ 0.3144	8 g6	0.3935/ 0.3931	10 g6
⑤	0.32	8	0.71	18	0.71	18
⑥	1.26	32	1.26	32	1.26	32

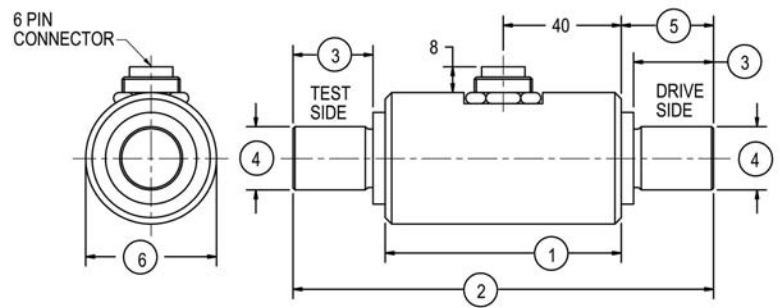


Dimensions in mm

**TS12 Shaft Style Reaction Torque Transducer - Capacities 20 to 500 Nm**

**DIMENSIONS**

Nominal Torque						
Capacity (Nm)	20, 30		50, 100		200, 500	
Equivalent (lb-in)	177, 265		443, 885		1.77K 4.43K	
	inch	mm	inch	mm	inch	mm
①	2.87	73	2.87	73	3.13	79.5
②	4.39	111.5	5.81	147.5	6.28	159.5
③	0.71	18	1.42	36	1.50	38
④	0.7087/ 0.7082	18 h6	0.7087/ 0.7082	18 h6	1.2598/ 1.2592	32 h6
⑤	0.75	19	1.46	37	1.58	40
⑥	2.01	51	2.01	51	2.60	66

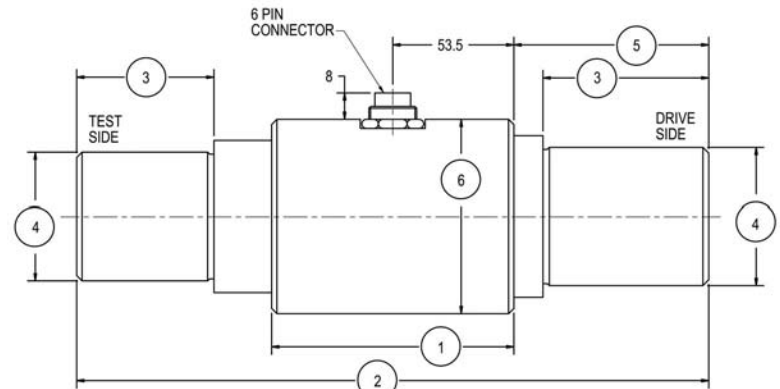


Dimensions in mm

**TS12 Shaft Style Reaction Torque Transducer - Capacities 1,000 to 20,000 Nm**

**DIMENSIONS**

Nominal Torque						
Capacity (Nm)	1K		2K, 5K		10K, 20K	
Equivalent (lb-in)	8.85K		17K, 44.3K		85.5K 177K	
	inch	mm	inch	mm	inch	mm
①	4.21	107	5.32	135	5.51	140
②	10.32	262	14.84	377	18.50	470
③	2.28	58	4.33	110	4.72	120
④	1.9685/ 1.9675	50 h7	2.7559/ 2.7549	70 h7	4.3307/ 4.3293	110 h7
⑤	2.60	66	4.96	126	6.30	160
⑥	3.82	97	4.41	112	6.81	173



Dimensions in mm