

# Model T14 Slip-Ring Rotary Torque Transducer

- Capacities from 1 to 500 Nm (8.85 to 4.4K lb-in)
- Integrated speed and angle measurement option
- Keyed shaft
- mV/V output
- Small, compact size



## OPTIONS

Speed & Angle Measurement – 360 Pulse TTL, 2-Tracks 90° Offset  
Internal R-CAL, 100%

### BRUSH LIFE

SPEED (rpm)	CAPACITY (Nm)		
	1, 2, 5, 10	20, 50, 100	200, 500
10	10 years	7.6 years	5.7 years
100	138 days	62 days	55 days
500	233 hours	166 hours	100 hours
1000	83 hours	50 hours	33 hours
1500	44 hours	27 hours	-
2000	25 hours	-	-

## SPECIFICATIONS

<b>ACCURACY – (MAX ERROR)</b>	
Combined Error-% FS	±0.1
Nonrepeatability-%	±0.05
<b>TEMPERATURE</b>	
Effect on Zero-% RO/C°	±0.02
Effect on Output-%/C°	±0.01
Rated Range-°C	+5 to +50
Compensated Range-°C	-10 to +60
<b>ELECTRICAL</b>	
Output-mV/V	
1-2 Nm	0.5
5-500 Nm	2.0
Bridge Resistance-Ohm	350
Electrical Connection	12-pin
<b>MECHANICAL</b>	
Safe Overload-% RO	130
Cyclic Load Rating-% RO	±70 peak
Shaft	Stainless Steel
Housing	Aluminum

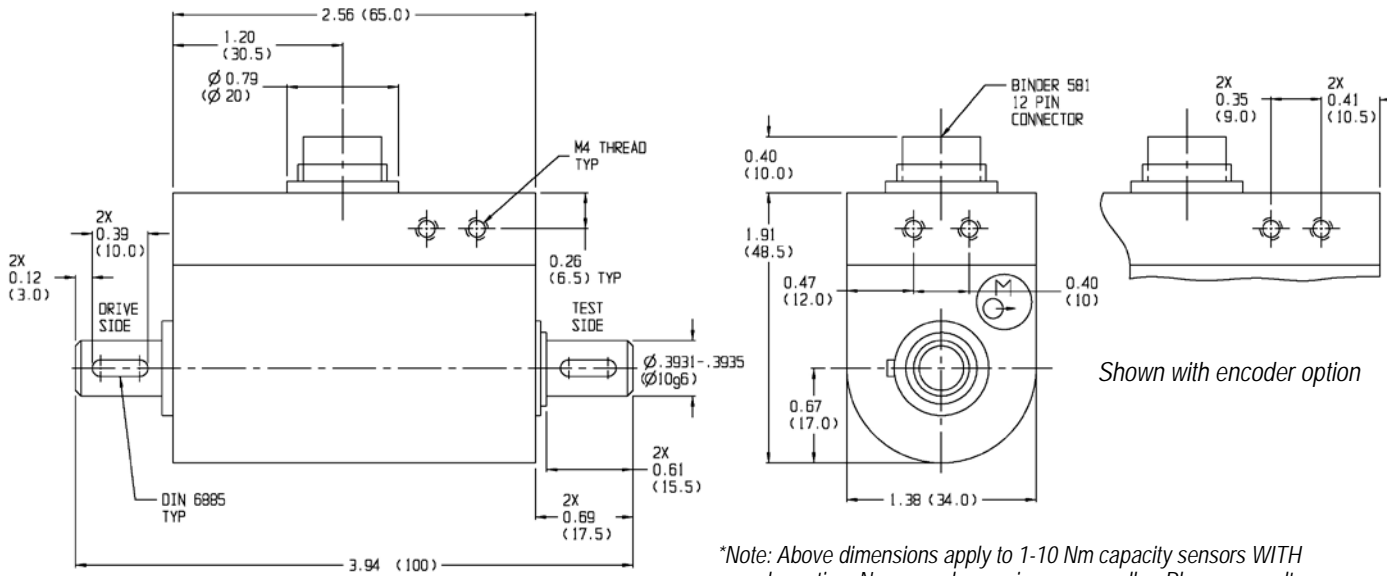
## PERFORMANCE PARAMETERS

CAPACITY (Nm)	SENSITIVITY (mV/V)	CONTINUOUS MAX SPEED (min <sup>-1</sup> )	SPRINGRATE (Nm/rad)	MAXIMUM LATERAL LOAD (N)	MOMENT OF INERTIA, J (Kgxm <sup>2</sup> ) – Drive Side	WEIGHT (Kg)
1	0.5	2,000	2.3x10 <sup>2</sup>	4	3.3x10 <sup>-6</sup>	0.5
2	0.5	2,000	2.3x10 <sup>2</sup>	5	3.3x10 <sup>-6</sup>	0.5
5	2	2,000	2.9x10 <sup>2</sup>	7	3.3x10 <sup>-6</sup>	0.5
10	2	2,000	5.6x10 <sup>2</sup>	7.5	1.1x10 <sup>-5</sup>	0.5
20	2	1500	1.6x10 <sup>3</sup>	12	1.1x10 <sup>-5</sup>	0.6
50	2	1500	4.1x10 <sup>3</sup>	28	1.1x10 <sup>-5</sup>	0.6
100	2	1500	7.9x10 <sup>3</sup>	65	1.3x10 <sup>-5</sup>	0.6
200	2	1000	2.8x10 <sup>4</sup>	80	1.0x10 <sup>-4</sup>	1.3
500	2	1000	5.3x10 <sup>4</sup>	200	1.0x10 <sup>-4</sup>	1.3

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## DIMENSIONS

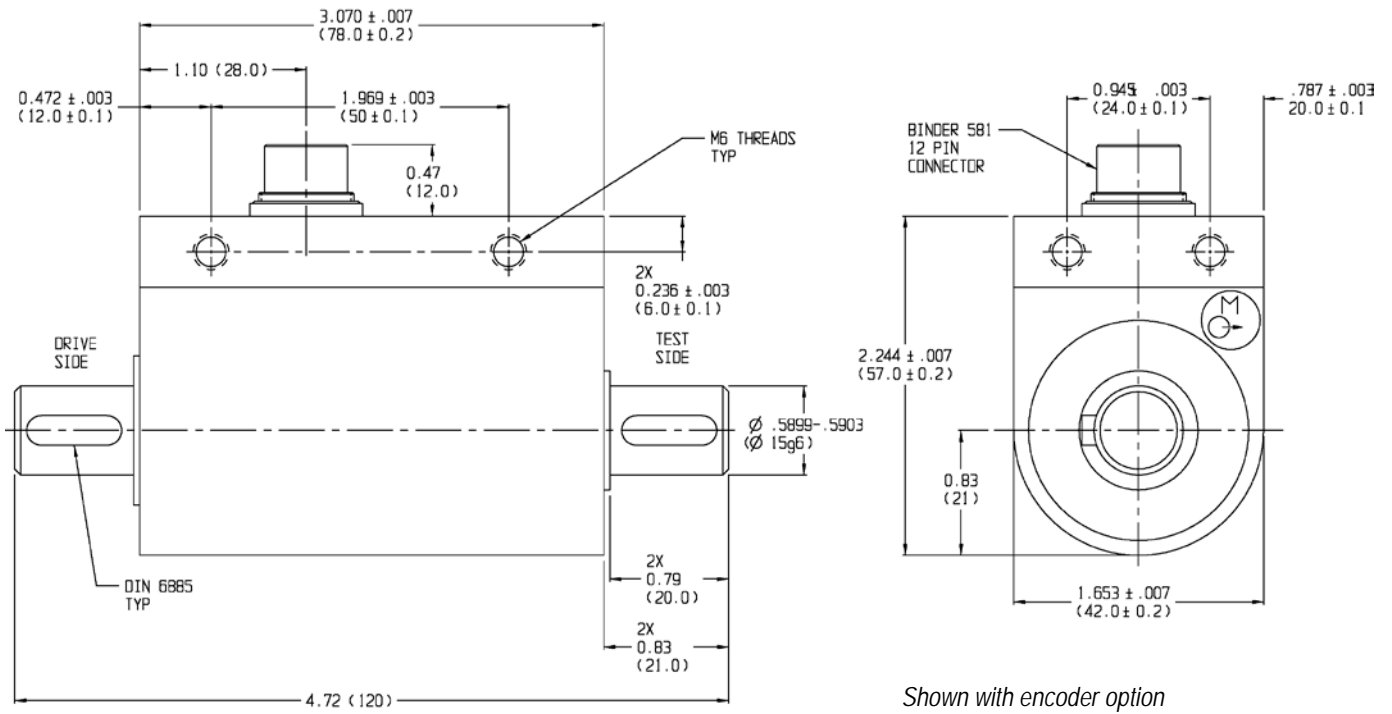
Model T14 Slip-Ring Rotary Torque Transducer – Capacities 1 - 10 Nm (8.85 to 88.5 lb-in)



\*Note: Above dimensions apply to 1-10 Nm capacity sensors WITH encoder option. Non-encoder versions are smaller. Please consult the factory for complete dimensions.

## DIMENSIONS

Model T14 Slip-Ring Rotary Torque Transducer – Capacities 20 - 100 Nm (177 to 885 lb-in)

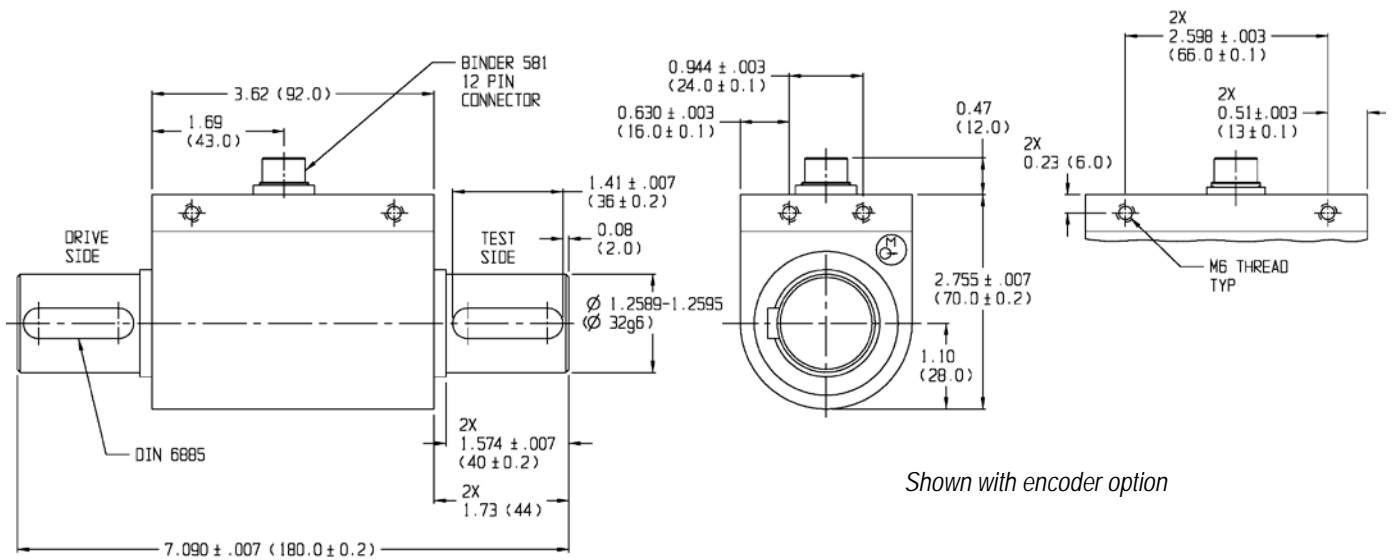


Shown with encoder option

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## DIMENSIONS

Model T14 Slip-Ring Rotary Torque Transducer – Capacities 200 - 500 Nm (1.77K to 4.4K lb-in)



T14 with 12-Pin with Encoder		
Pin	Function	Description
A	Excitation (-)	0 V
B	Excitation (+)	2-12 V
C	Signal (+)	+ Output
D	Signal (-)	- Output
E	Excitation Angle	0 V
F	Excitation Angle	+5 V
G	Angle A	TTL
H	Angle B	TTL
J	Angle	0 V
K	100% R-Cal Option	Connect to Pin B
L	NC	-
M	Shield	

T14 6-Pin without Encoder		
Pin	Function	Description
1	Excitation (-)	0 V
2	Excitation (+)	2-12 V
3	Shield	
4	Signal (+)	+ Output
5	Signal (-)	- Output
6	100% R-Cal Option	Connect to Pin 2

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