

# Model T8 LC Rotary Torque Transducer

Why the Interface model T8 LC Rotary Torque Transducer is the best in class:

- Capacities from 0.2 to 200 Nm (1.77 to 1.77K lb-in)
- Stainless steel shaft
- $\pm 5$  VDC output
- 12-28 VDC supply
- Contactless



T8 LC Rotary Torque Transducer

## SPECIFICATIONS

### ACCURACY – (MAX ERROR)

Combined Error-% FS .....  $\pm 0.25$   
 Nonrepeatability-% .....  $\pm 0.05$

### TEMPERATURE

Effect on Zero-% RO/ $^{\circ}$ C .....  $\pm 0.04$   
 Effect on Output-%/ $^{\circ}$ C .....  $\pm 0.02$   
 Rated Range- $^{\circ}$ C ..... +5 to +45  
 Operating Range- $^{\circ}$ C ..... 0 to +60

### ELECTRICAL

Torque Output-VDC .....  $\pm 5$   
 Bandwidth, Hz ..... 1 kHz-3dB  
 Supply Voltage-VDC ..... 12 to 28  
 Supply Current-mA ..... 90  
 Electrical Connection ..... Integral cable, 3-ft

### MECHANICAL

Safe Overload-% RO ..... 180  
 Cyclic Load Rating-% RO .....  $\pm 70$  peak  
 Max Speed - rpm ..... Varies with capacity, see table

Shaft ..... Stainless steel  
 Housing ..... Aluminum

T8 INTEGRAL CABLE WIRING CODE		
Function	Description	Color
Supply (+)	12 to 28 VDC	Brown
Supply (GND)	0 VDC	Green
Signal (+)	$\pm 5$ VDC	Yellow
Signal (GND)	0 VDC	White
Shield	Shield	Shield

## T8 LC ROTARY TORQUE TRANSDUCER PERFORMANCE PARAMETERS

CAPACITY (Nm)	MAX RPM	SPRINGRATE (Nm/rad)	MOMENT OF INERTIA, J (Kgxm <sup>2</sup> )		MAX. THRUST LOAD (N)
			Drive Side	Test Side	
0.2	8,000	1.6	$1.6 \times 10^{-6}$	$1.0 \times 10^{-6}$	20
0.5	8,000	9.6	$1.6 \times 10^{-6}$	$1.0 \times 10^{-6}$	30
1	8,000	$3.6 \times 10^2$	$1.6 \times 10^{-6}$	$1.1 \times 10^{-6}$	40
2	8,000	$8.9 \times 10^2$	$1.6 \times 10^{-6}$	$1.1 \times 10^{-6}$	40
5	8,000	$8.9 \times 10^2$	$1.7 \times 10^{-6}$	$1.1 \times 10^{-6}$	50
10	8,000	$8.9 \times 10^2$	$1.7 \times 10^{-6}$	$1.1 \times 10^{-6}$	50
15	8,000	$8.4 \times 10^3$	$1.7 \times 10^{-6}$	$1.1 \times 10^{-6}$	50
20	6,000	$8.4 \times 10^3$	$4.2 \times 10^{-5}$	$2.1 \times 10^{-5}$	1,600
50	6,000	$8.4 \times 10^3$	$4.2 \times 10^{-5}$	$2.1 \times 10^{-5}$	1,600
100	6,000	$2.0 \times 10^4$	$4.7 \times 10^{-5}$	$2.7 \times 10^{-5}$	3,000
200	6,000	$2.0 \times 10^4$	$4.2 \times 10^{-5}$	$2.7 \times 10^{-5}$	3,000

## OPTIONS

Extra cable length

# T8 LC Rotary Torque Transducer - Capacities 0.2 to 200 Nm

## DIMENSIONS

Capacity (Nm)	Nominal Torque							
	0.2, 0.5, 1, 2		5, 10, 15		20, 50		100, 200	
Equivalent (lb-in)	1.77, 4.43 8.85, 17.7		44.3, 88.5, 133		177, 443		885, 1.77K	
	inch	mm	inch	mm	inch	mm	inch	mm
①	3.94	100	3.94	100	5.51	140	6.30	160
②	0.69	17.5	0.69	17.5	1.18	30	1.57	40
③	0.67	17	0.67	17	1.14	29	1.53	39
④	0.3148/ 0.3144	8g6	0.3935/ 0.3931	10g6	0.7087/ 0.7082	18g6	0.8659/ 0.8654	22g6
⑤	0.59	15	0.59	15	0.79	20	0.79	20
⑥	1.38	35	1.38	35	1.57	40	1.57	40
⑦	1.81	46	1.81	46	2.56	65	2.56	65
⑧	0.31	8	0.31	8	0.59	15	0.59	15
⑨	1.02	26	1.02	26	1.37	34.8	1.37	34.8
⑩	M4	M4	M4	M4	M5	M5	M5	M5



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