

## T8 ECO ROTARY TORQUE TRANSDUCER (U.S. & METRIC)

### FEATURES & BENEFITS

- Capacities from 0.2 to 200 Nm (1.77 to 1.77K lbf-in)
- Stainless steel shaft
- ±5 VDC output
- 12 to 28 VDC supply
- Contactless

### SPECIFICATIONS

ACCURACY – (MAX ERROR)		
Combined Error – %FS		±0.25
Nonrepeatability – %FS		±0.05
TEMPERATURE		
Effect on Zero – %RO / °C		±0.04
Effect on Output – % / °C		±0.02
Rated Range	°C	+5 to +45
	°F	+41 to +113
Operating Range	°C	0 to +60
	°F	+32 to +140
ELECTRICAL		
Output – VDC		±5
Bandwidth – kHz – dB		1 – 3
Supply Voltage – VDC		+12 to +28
Supply Current – mA		90
Resolution		Analog
MECHANICAL		
Safe Overload – %RO		180
Max Speed – RPM		Varies with capacity (see table)
Cable Length	m	1
	ft	3
Shaft Material		Stainless steel
Housing Material		Aluminum

### STANDARD CONFIGURATION



MODEL T8 (Shown)

### OPTIONS

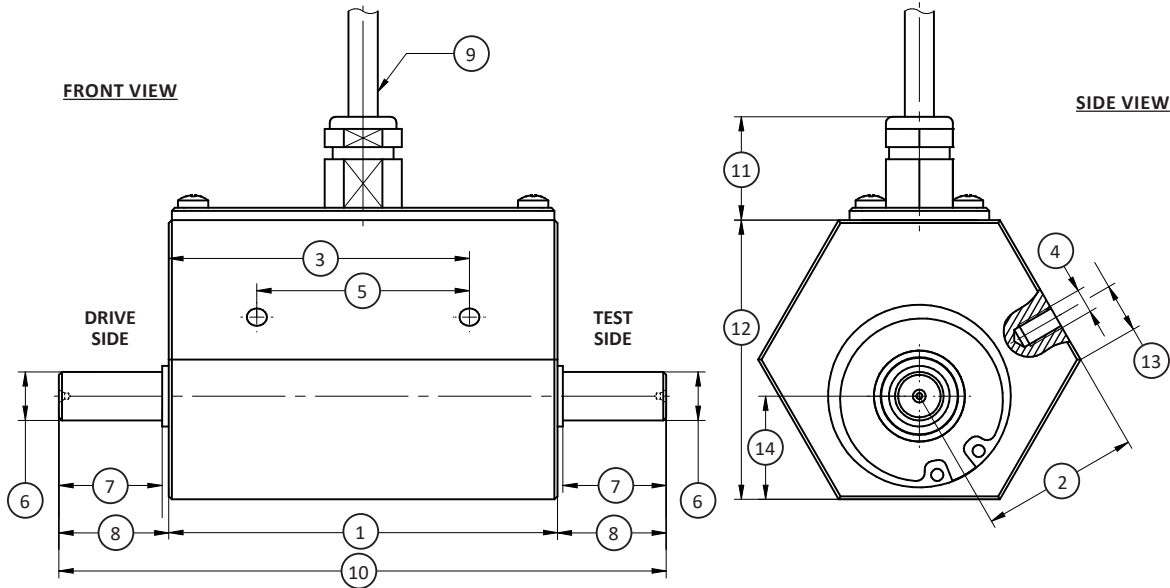
- Keyed shafts – per Din 6885.1

T8 INTEGRAL CABLE WIRING CODE		
Function	Description	Color
Supply (+)	+12 to +28 VDC	Brown
Supply (GND)	0 VDC	Green
Signal (+)	±5 VDC (+10 VDC)	Yellow
Signal (GND)	0 VDC	White
Shield	Shield	Shield

### PERFORMANCE PARAMETERS

CAPACITY		MAX RPM	SPRING RATE (NM/rad)	MOMENT OF INERTIA (Kg•m <sup>2</sup> )		MAX THRUST LOAD		MAX SHEAR FORCE	
Nm	lbf-in			Drive Side	Test Side	N	lbf	N	lbf
0.2	1.77	10,000	1.8x10 <sup>1</sup>	1.6x10 <sup>-6</sup>	1.0x10 <sup>-6</sup>	58	13	1.5	0.34
0.5	4.43	10,000	1.1x10 <sup>2</sup>	1.6x10 <sup>-6</sup>	1.0x10 <sup>-6</sup>	185	41.6	2.1	0.47
1	8.85	10,000	2.2x10 <sup>2</sup>	1.6x10 <sup>-6</sup>	1.1x10 <sup>-6</sup>	340	76.4	5.1	1.15
2	17.7	10,000	2.1x10 <sup>2</sup>	1.6x10 <sup>-6</sup>	1.1x10 <sup>-6</sup>	340	76.4	5.1	1.15
5	44.3	10,000	8.9x10 <sup>2</sup>	1.7x10 <sup>-6</sup>	1.1x10 <sup>-6</sup>	1.05K	236	29	6.52
10	88.5	10,000	8.9x10 <sup>2</sup>	1.7x10 <sup>-6</sup>	1.1x10 <sup>-6</sup>	1.05K	236	29	6.52
20	177	8,000	8.4x10 <sup>3</sup>	4.2x10 <sup>-5</sup>	2.1x10 <sup>-5</sup>	2.6K	585	98	22.0
50	443	8,000	8.4x10 <sup>3</sup>	4.2x10 <sup>-5</sup>	2.1x10 <sup>-5</sup>	2.6K	585	98	22.0
100	885	8,000	2.0x10 <sup>4</sup>	4.7x10 <sup>-5</sup>	2.7x10 <sup>-5</sup>	6.4K	1.44K	250	56.2
200	1.77K	8,000	2.0x10 <sup>4</sup>	4.7x10 <sup>-5</sup>	2.7x10 <sup>-5</sup>	6.4K	1.44K	250	56.2

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### DIMENSIONS

See Drawing	CAPACITIES							
	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)
	0.2, 0.5, 1, 2	1.77, 4.43, 8.85, 17.7	5, 10	44.3, 88.5, 133	20, 50	177, 443	100, 200	885, 1.77K
	mm	in	mm	in	mm	in	mm	in
(1)	82	3.2	82	3.2	110	4.3	120	4.7
(2)	26	1.02	26	1.02	34.8	1.37	34.8	1.37
(3)	49.5	1.95	49.5	1.95	60	2.4	60	2.4
(4)	M4		M4		M5		M5	
(5)	35	1.38	35	1.38	40	1.57	40	1.57
(6)	∅8g6	∅0.3148/0.3144	∅10g6	∅0.3935/0.3931	∅18g6	∅0.7087/0.7082	∅22g6	∅0.8659/0.8654
(7)	17	0.67	17	0.67	29	1.14	39	1.53
(8)	18	0.71	18	0.71	30	1.18	40	1.57
(9)	∅4.8	∅0.19	∅4.8	∅0.19	∅4.8	∅0.19	∅4.8	∅0.19
(10)	100	3.94	100	3.94	140	5.51	160	6.30
(11)	17	0.67	17	0.67	17	0.67	17	0.67
(12)	∅46	∅1.81	∅46	∅1.81	∅65	∅2.56	∅65	∅2.56
(13)	8	0.31	8	0.31	15	0.59	15	0.59
(14)	17	0.67	17	0.67	28	1.1	28	1.1