

Model T-25 Contactless USB Rotary Torque Transducer

Why the Interface Model T-25 Contactless USB Rotary Torque Transducer is the best in class:

- Capacities from 0.5 to 1K Nm (4.43 to 8.85K lb-in)
- Supply and output via USB
- Up to 2500 measurements/sec
- Speed up to 30K RPM
- Suitable for mobile operations with a laptop
- Calibration data stored inside transducer
- Calibration and control trigger via software
- Virtually no influence of bearing friction on measuring signal
- Includes speed and angle measurement
- Graphical representation of torque/speed/power or torque/angle of rotation
- Simultaneous logging and graphing
- Data stored as .CSV text or .BMP graphic
- 16-bit resolution



SPECIFICATIONS

Accuracy (Max Error)	
Combined Error (%FS)	±0.1
Nonrepeatability (%RO)	±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	
Output Counts	±25,000*
Torque Output:	
Speed/Angle Output, Counts	±32,511*
Sample Rate, kHz	2.5
Bandwidth, Hz	1 kHz-3 dB
Calibration Signal %RO	100
Supply Voltage – VDC from USB	4 to 6
Supply Current – mA from USB	< 250
Electrical Connection	USB
Mechanical	
Safe Overload %RO	200
Cyclic Load Rating %RO	±70 peak
Max Speed RPM	To 30K (see table)
Shaft	Stainless Steel
Housing	Aluminum

*± Indicates rotational direction for clockwise and/or counter-clockwise direction

OPTIONS

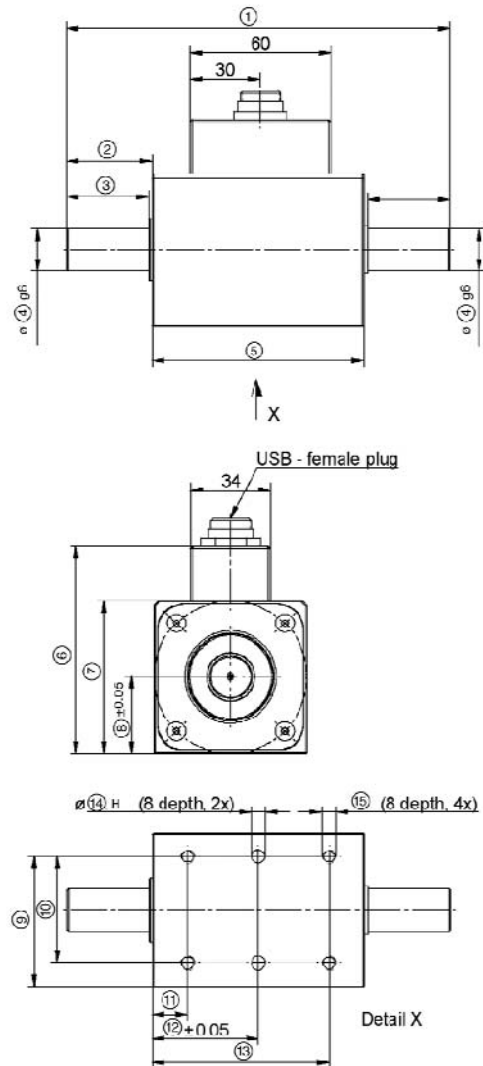
Speed and angle measurement

DIMENSIONS

Capacity (Nm)	0.5, 1, 2, 5		10		20, 30, 50, 100		200, 300, 500		1K	
Equivalent (lb-in)	4.43, 8.85, 17.7, 44.3		88.5		177, 266, 443, 885		1770, 2655, 4425		8.85K	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1	44.3	110	44.3	110	6.42	163	234	9.21	234	9.21
2	0.75	19	0.75	19	1.44	36.5	2.22	56.5	2.22	56.5
3	0.70	17	0.70	17	1.38	35	2.17	55	2.17	55
4	0.31	8	0.40	10	0.71	18	1.30	32	1.65	42
5	2.80	71	2.80	71	3.54	90	4.72	120	4.72	120
6	2.48	63	2.48	63	3.46	88	4.65	118	4.65	118
7	1.57	40	1.57	40	2.56	65	3.74	95	3.74	95
8	0.79	20	0.79	20	1.28	32.5	1.87	47.5	1.87	47.5
9	1.38	35	1.38	35	2.17	55	3.25	82.5	3.25	82.5
10	1.18	30	1.18	30	1.77	45	2.76	70	2.76	70
11	0.47	12	0.47	12	0.59	15	0.79	20	0.79	20
12	1.40	35.5	1.40	35.5	1.77	45	2.36	60	2.36	60
13	2.32	59	2.32	59	2.95	75	3.94	100	3.94	100
14	0.16	4	0.16	4	0.24	6	0.31	8	0.31	8
15	M4	M4	M4	M6	M6	M8	M8	M8	M8	M8

PERFORMANCE PARAMETERS

Measuring Range (Nm)	Weight (kg)	Max Speed (RPM)	Springrate (Nm/rad)	Moment of Inertia (kg x m ²)		Natural Frequency (Hz)
				Drive Side	Test Side	
0.5	0.5	30,000	1.2E+02	1.1E-05	1.8E-07	4.1E+03
1	0.5	30,000	1.2E+02	1.1E-05	1.8E-07	4.1E+03
2	0.5	30,000	3.2E+02	1.1E-05	1.8E-07	6.7E+03
5	0.5	30,000	5.6E+02	1.1E-05	1.9E-07	8.6E+03
10	0.6	30,000	5.9E+02	1.1E-05	2.0E-07	8.7E+03
20	1.5	20,000	4.43E+03	1.2E-04	6.8E-06	4.2E+03
30	1.5	20,000	4.4E+03	1.2E-04	6.8E-06	4.2E+03
50	1.5	20,000	8.2E+03	1.2E-04	7.3E-06	5.5E+03
100	1.5	20,000	8.2E+03	1.2E-04	7.3E-06	5.5E+03
200	4.8	15,000	7.3E+04	5.6E-04	4.5E-04	2.7E+03
300	4.8	15,000	7.3E+04	5.6E-04	4.5E-04	2.7E+03
500	4.8	15,000	7.3E+04	5.6E-04	4.5E-04	2.7E+03
1K	5.1	15,000	1.6E+05	6.6E-04	5.4E-04	3.6E+03



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