

T22 PULLEY ROTARY TORQUE TRANSDUCER (US & METRIC)

FEATURES & BENEFITS

- Capacities from 20 to 5K Nm (177 to 44K lbf-in)
- ± 5 VDC output
- Digital electronics
- 10 kHz sample rate
- Contactless
- 16-bit resolution

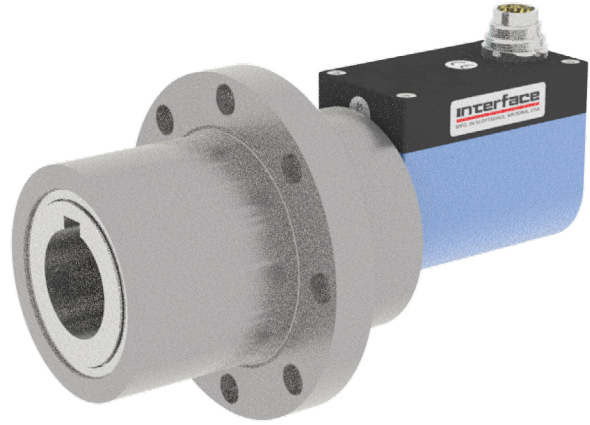
SPECIFICATIONS

ACCURACY – (MAX ERROR)		
Combined Error – %FS		± 0.1
Non-repeatability – %		± 0.02
TEMPERATURE		
Effect on Zero – %RO / °C		± 0.02
Effect on Output – % / °C		± 0.01
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
Calibration Signal – %RO		100
Supply Voltage – VDC		12 to 28
Supply Current – mA		60
Electrical Connection – pin		12
MECHANICAL		
Safe Overload – %RO		200
Max Speed – RPM		Varies with capacity. (See table)
Housing Material		Aluminum

ELECTRICAL CONNECTION

8-PIN T12 ELECTRICAL CONNECTION		
PIN	FUNCTION	DESCRIPTION
1	NC	-
2	Option Angle B	TTL
3	Signal (+)	± 5 VDC
4	Signal (GND)	0 VDC
5	Supply (GND)	0 VDC, TTL
6	Supply (+)	12-28 VDC
7	Option Angle A	TTL
8	NC	-
9	NC	-
10	Cal. Control	L < 2.0 / H > 3.5 V
11	NC	-
12	Shield	Transducer Housing

STANDARD CONFIGURATION



MODEL T22 (Shown)

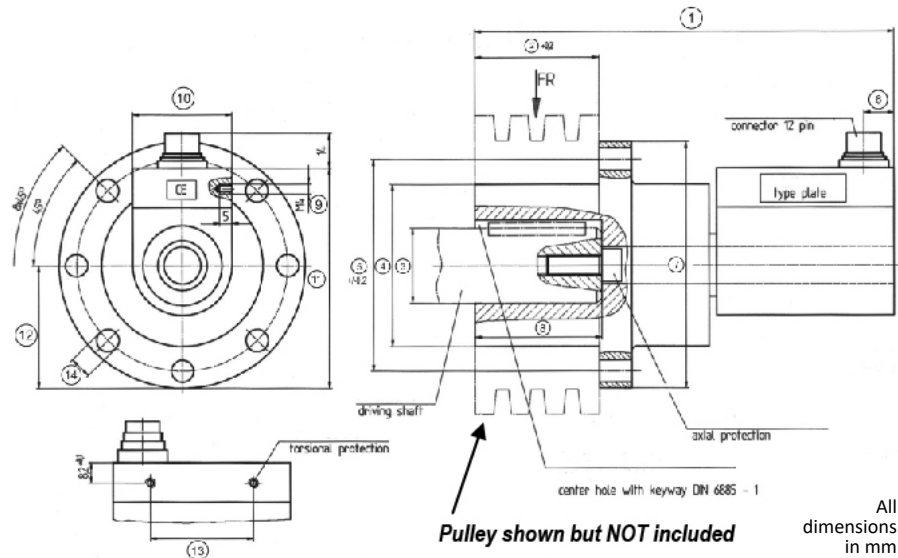
OPTIONS

- Speed & angle measurement - 360 pulse TTL, 2-tracks 90° offset, available on capacities up to 1K Nm (8.85K lbf-in) only
- Speed output - 60 pulse TTL, 1-track, available on capacities 2K Nm (17.7K lbf-in) & above
- ± 10 V torque output
- USB output & software

PERFORMANCE PARAMETERS

CAPACITY		MAX RPM	SPRING RATE	MOMENT OF INERTIA – J (Kg•m ²)		MAX RADIAL LOAD FR	
Nm	lbf-in			Drive Side	Test Side	N	lbf
20	177	12,000	1.3x10 ⁴	1.6x10 ⁻⁴	1.7x10 ⁻³	11K	2.47K
50	443	12,000	2.6x10 ⁴	1.6x10 ⁻⁴	1.7x10 ⁻³	11K	2.47K
100	885	12,000	5.3x10 ⁴	1.6x10 ⁻⁴	1.7x10 ⁻³	11K	2.47K
200	1.77K	12,000	1.1x10 ⁵	1.6x10 ⁻⁴	1.7x10 ⁻³	11K	2.47K
500	4.43K	10,000	3.1x10 ⁵	2.4x10 ⁻³	4.6x10 ⁻²	37K	8.32K
1K	8.85K	10,000	6.7x10 ⁵	2.4x10 ⁻³	4.6x10 ⁻²	37K	8.32K
2K	17.7K	5,000	9.4x10 ⁵	1.8x10 ⁻²	1.2x10 ⁻¹	48K	10.8K
5K	44.3K	5,000	2.5x10 ⁶	1.8x10 ⁻²	1.2x10 ⁻¹	48K	10.8K

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DIMENSIONS

See Drawing	CAPACITIES							
	Metric (Nm)	US (lbf-in)	Metric (Nm)	US (lbf-in)	Metric (Nm)	US (lbf-in)	Metric (Nm)	US (lbf-in)
	20, 50, 100, 200	177, 443, 885, 1.77K	500	4.43K	1K	8.85K	2K, 5K	17.7K, 44.3K
	mm	in	mm	in	mm	in	mm	in
(1)	168.5	6.63	227.5	8.96	227.5	8.96	287.5	11.32
(2)	50	1.97	60	2.36	60	2.36	110	4.43
(3)	15 H7 / 30 H7	0.59 / 1.18	40 H7 / 55H7	1.57 / 2.17	50 H7 / 55 H7	1.97 / 2.17	60 H7 / 85 H7	2.36 / 3.35
(4)	65g6	2.56	140g6	5.51	140g6	5.51	170g6	6.69
(5)	85	3.35	158	6.22	158	6.22	195	7.68
(6)	12	0.47	15	0.59	15	0.59	15	0.59
(7)	99	3.90	176	6.93	176	6.93	220	8.66
(8)	51	2.01	80	3.15	80	3.15	130	5.12
(9)	M8		M12		M12		M16	
(10)	40	1.57	58	2.28	58	2.28	58	2.28
(11)	88.5	3.48	135	5.31	135	5.31	157	6.18
(12)	49.5	1.95	88	3.43	88	3.43	110	4.33
(13)	41.5	1.63	29.5	1.16	29.5	1.16	29.5	1.16
(14)	9	0.35	11	0.43	11	0.43	13	0.51