

T1 TORQUE COUPLING ROTARY TORQUE TRANSDUCER

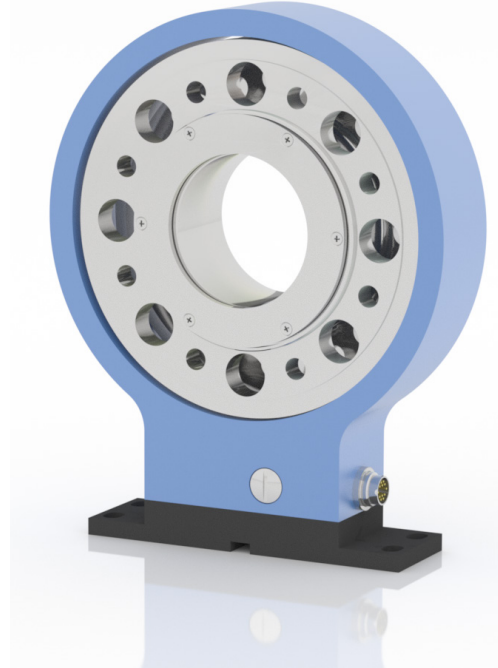
FEATURES & BENEFITS

- Capacities from 50 to 1K Nm
- Shortest installed length
- Integrated double-flex disc coupling
- Hollow
- Bearingless non-contact design
- 16-bit resolution

SPECIFICATIONS

	STANDARD	ENHANCED
ACCURACY – (MAX ERROR)		
Combined Error – %FS	±0.15	±0.05
Non-repeatability – %	±0.02	±0.005
TEMPERATURE		
Effect on Zero – %RO / °C	±0.02	±0.008
Effect on Output – % / °C	±0.01	±0.005
Rated Range – °C	+5 to +45	
Operating Range °C	0 to +60	
ELECTRICAL		
Output – VDC	±5	
Bandwidth, Hz	3 kHz, 3dB	
Sample Rate – kHz	10	
Calibration Signal – %FS	100	
Supply Voltage – VDC	12 - 18	
Supply Current – mA	< 100	
Electrical Connection – pin	12	
Resolution – bit	16	
MECHANICAL		
Safe Overload – %RO	200	
Ultimate Overload – %RO	300	
Max Speed – rpm	13.6K – See table	
Material		

STANDARD CONFIGURATION



MODEL T1 (Shown)

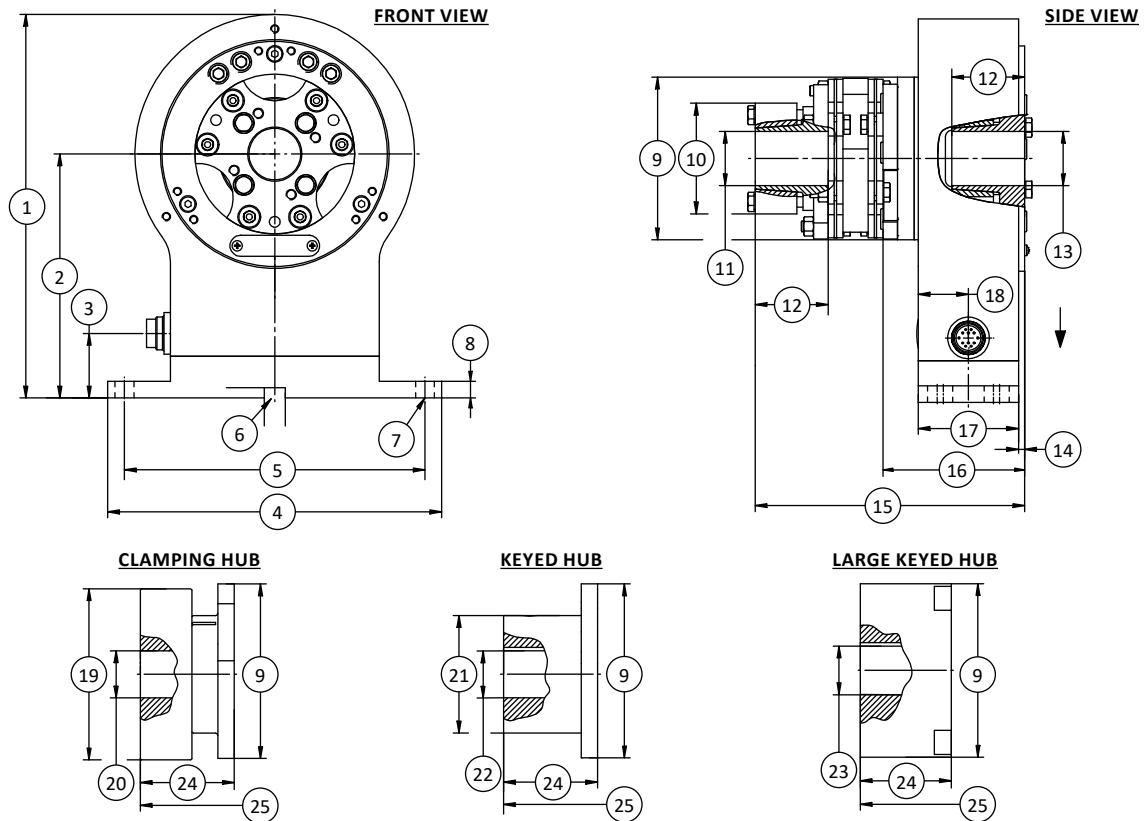
OPTIONS

- Enhanced Accuracy – 0.05%
- High RPM
- Speed Measurement – 30 Pulse +5V TTL
- Keyway Side 1 (Reduced max diam dA)
- ±10 VDC Output
- RS485

Size	Nominal Torque (Nm)	Max Revolution		*Max Axial Load (N)	*Axial Displacement Max (mm)	*Angular Displacement Max (°)	*Radial Displacement Max (mm)	Spring-rate (Nm/rad)	Moment of Inertia (kg•m ²)	
		Standard	Extended						Side 1	Side 2
16	50	6,800	13,900	150	0.25	0.4° (0.2° per disc pack)	0.05	4.9E+04	2.1E-03	1.0E-03
	100							6.2E+04		
	150							6.2E+04		
25	150	5,900	11,800	190	0.25		0.05	1.2E+05	4.0E-03	1.8E-03
	200							1.2E+05		
	250							1.2E+05		
40	200	5,000	10,000	250	0.3		0.06	1.3E+05	6.4E-03	3.7E-03
	300							1.3E+05		
	400							1.3E+05		
64	400	4,300	8,500	450	0.3		0.06	3.1E+05	9.3E-03	8.5E-03
	500							3.1E+05		
	600							3.1E+05		
100	600	3,700	7,300	600	0.45	0.07	4.8E+05	1.9E-02	1.6E-02	
	750						4.8E+05			
	1K						4.8E+05			

T1 V1.3 03-14-2018

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DIMENSIONS

See Drawing	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Size	16	184	117	31	160	144 ±0.1	∅10 +0.1	M8	8	77	53	14-26	35
	25	195	122.5	31	160	144 ±0.1	∅10 +0.1	M8	8	89	64	20-36	40
	40	211	130.5	31	160	144 ±0.1	∅10 +0.1	M8	8	104	74	25-45	45
	64	230	140	31	160	144 ±0.1	∅10 +0.1	M8	8	123	84	30-45	50
	100	250	150	31	160	144 ±0.1	∅10 +0.1	M8	8	143	104	35-55	55

See Drawing	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	
Size	16	14-26	3	129	68	48	24	73	20-35	50	16-32	30-45	40	121
	25	20-36	3	134.6	68	48	24	84	22-40	60	20-40	35-55	45	139.6
	40	25-45	3	143.8	68	48	24	97	25-45	70	25-50	45-65	55	153.8
	64	30-45	3	155.2	68	48	24	115	28-55	80	30-55	55-75	65	170.2
	100	35-55	3	160.2	68	48	24	135	32-68	100	35-70	65-95	75	180.2