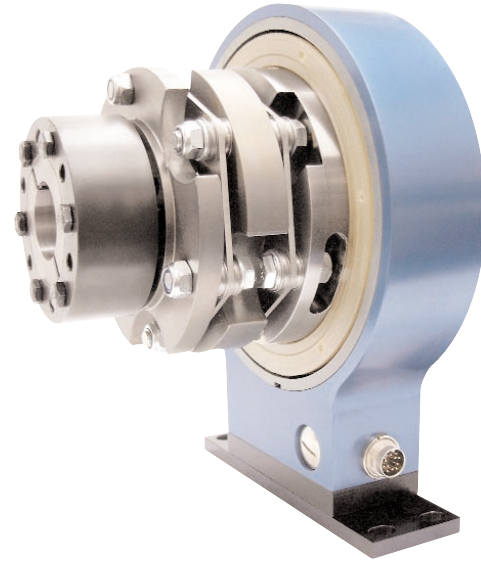




Model T1 Torque Coupling Rotary Torque Transducer

Why the Interface model T1 Torque Coupling Rotary Torque Transducer is the best in class:

- Capacities from 50 to 1K Nm (442 to 8,850 lb-in)
- Short overall length
- Integrated coupling
- Bearingless
- ± 15 bit resolution
- 10 kHz sample rate
- ± 5 VDC output



T1 Torque Coupling Rotary Torque Transducer

OPTIONS

- Enhanced accuracy - 0.05%
- High RPM
- Speed measurement - 30 pulse 5V TTL
- Keyway side 1 (reduced max diam dA)
- ± 10 VDC output
- RS485

SPECIFICATIONS

ACCURACY – (MAX ERROR)	Standard	Enhanced
Combined Error–% FS	± 0.15	± 0.05
Nonrepeatability–%	± 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		
Torque Output–VDC	± 5	
Bandwidth, Hz	3 kHz-3dB	
Sample Rate	10 kHz	
Calibration Signal–% FS	100	
Supply Voltage–VDC	12 to 18	
Supply Current–mA	<100	
Electrical Connection	12-pin	
MECHANICAL		
Safe Overload–% RO	200	
Cyclic Load Rating–% RO	± 70 peak	
Ultimate Overload–% RO	300	
Max Speed–rpm	13.6K-See Table	

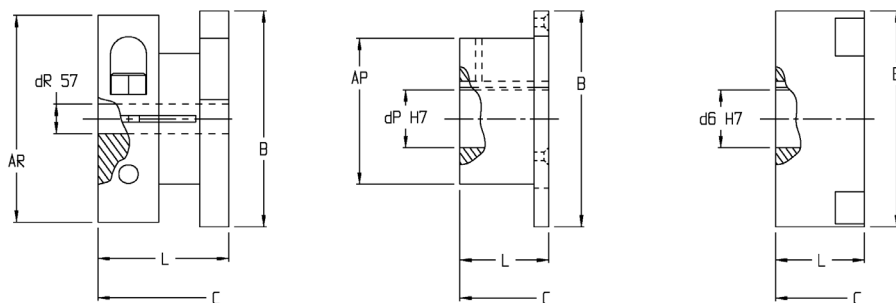
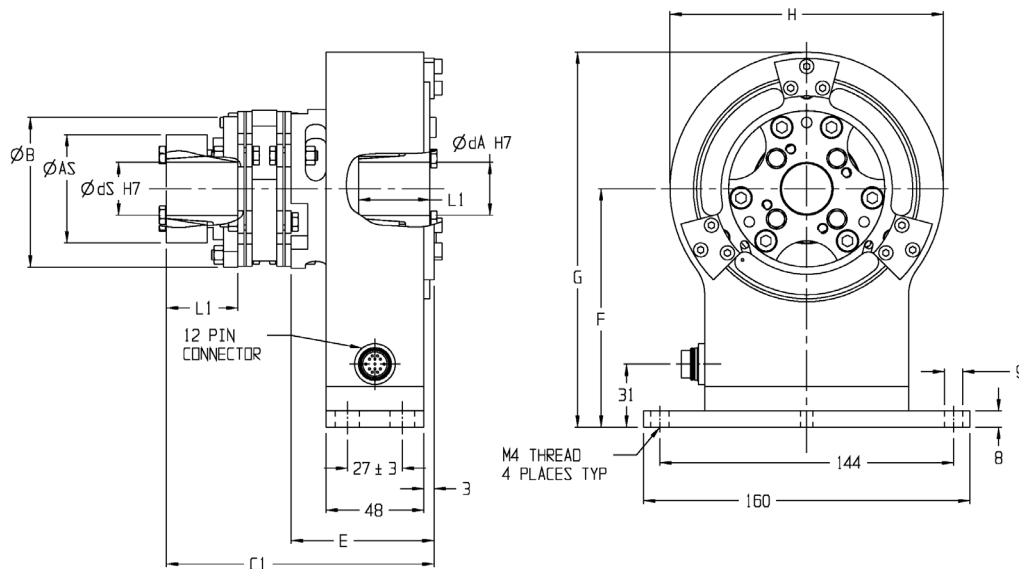


DIMENSIONS

Size (mm)																	
	AS	AR	AP	B	C	C1	dA	dS	dR	dP	dG	E	F	G	H	L	L1
16	53	73	50	77	134.2	129.2	14 - 26	14 - 26	25 - 35	16 - 32	30 - 45	64	117	184	134	40	35
25	64	84	60	89	139.4	134.4	20 - 36	20 - 36	30 - 40	20 - 40	35 - 55	68	122.5	195	145	45	40
40	74	97	70	104	153.8	143.8	25 - 45	25 - 45	30 - 45	25 - 50	45 - 65	68	130.5	211	161	55	45
64	84	115	80	123	170.2	155.2	30 - 45	30 - 45	35 - 55	30 - 55	55 - 75	68	140	230	180	65	50
100	104	135	100	143	181	161	35 - 55	35 - 55	40 - 68	35 - 70	65 - 95	68	150	250	200	75	55

Dimensions are min. - max. dimensions (min-dimensions with dimensional restriction)
 With an additional keyway on side 1 the max. $\text{O}dA$ will reduce, see options.

T1 Torque Coupling Rotary Torque Transducer - Capacities 50 to 1K Nm



Dimensions in mm

ELECTRICAL CONNECTION

12-PIN T1 ELECTRICAL CONNECTION		
Pin	Function	Description
A	NC	-
B	NC	-
C	Signal \pm	± 5 VDC
D	Signal (GND)	0 VDC
E	Excitation (GND)	0 VDC
F	Excitation (+)	12-28 V
G	Speed (TTL)	Option
H	NC	-
J	RS485	(B)
K	Cal. Control	
L	RS485	(A)
M	Housing	-

Size	Nominal Torque		Max. Revolution		*Max. Axial Load	*Axial Displcmnt Max. (mm)	*Angular Displcmnt Max. (°)	*Radial Displcmnt Max. (mm)	Springrate (Nm/rad)	Moment of Inertia J in (kg m ²)	
	Nm	lb-in	Standard	Extended						Side 1	Side
16 (E)	50	443	6,800	13,600	150	± 1.1	2° (1° per disc pack)	0.3	6.3E+04	2.1E-03	1.0E-03
	100	885							6.9E+04		
	150	1.33K							6.9E+04		
25 (F)	150	1.33K	5,900	11,800	190	± 1.3		0.3	1.3E+05	4.0E-03	1.8E-03
	200	1.77K							1.3E+05		
	250	2.21K							1.3E+05		
40 (G)	200	1.77K	5,000	10,000	250	± 1.5		0.4	1.5E+05	6.4E-03	3.7E-03
	300	2.66K							1.5E+05		
	400	3.54K							1.5E+05		
64 (H)	400	3.54K	4,300	8,500	450	± 1.8		0.45	3.6E+05	9.3E-03	8.5E-03
	500	4.43K							3.6E+05		
	600	5.31K							3.6E+05		
100 (J)	600	5.31K	3,700	7,300	600	± 2.1	0.45	5.5E+05	1.9E-02	1.6E-02	
	750	6.64K						5.5E+05			
	1K	8.85K						5.5E+05			

*Single values may not reach the maximum values simultaneously.

