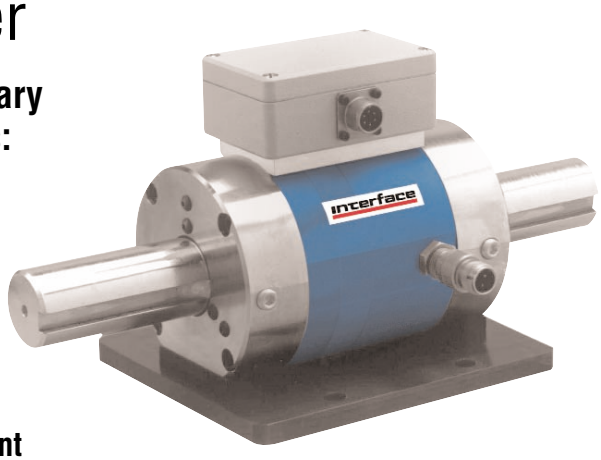
Model RT12E High Capacity Rotary Transformer Torque Transducer



Why the Interface model RT12E High Capacity Rotary Transformer Torque Transducer is the best in class:

- **2X overload rating**
- **Performance to 0.07%**
- **Bidirectional operation including stall**
- **Ferrite-free rotary transformer coupling**
- **Calibration & balance free of cable effects**
- **Unexcelled immunity to machinery magnetic fields**
- **15-5 PH stainless shaft, splashproof & corrosion resistant**
- **mV/V output compatible with carrier amplifiers**
- **Noise hardening**

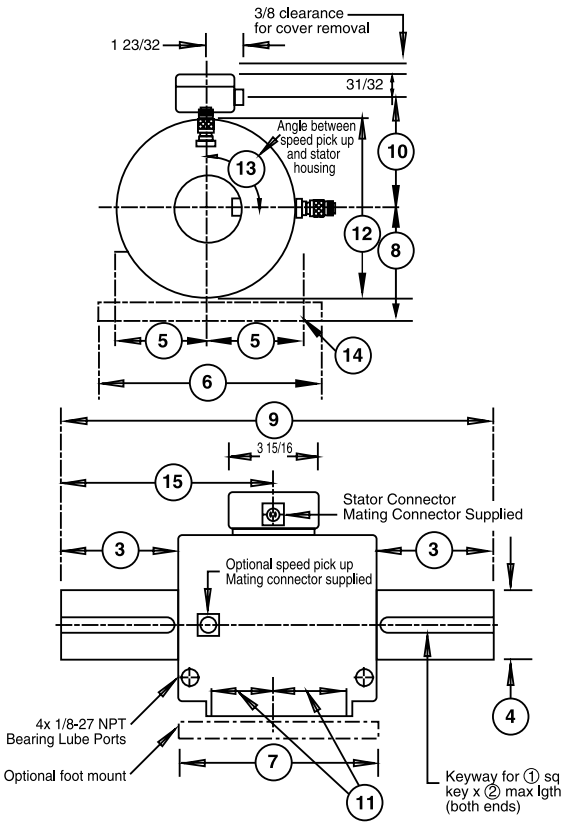
OPTIONS*

On-board Signal Conditioning**
Digital Output-RS232**
Enhanced Performance
Foot Mount (shown in photo)
Standard & Zero Velocity Speed Pickups
Flange Style Mount

ACCESSORIES*

Interconnect Cables
Digital Readout (9850)

Please call for additional information
***Please consult factory for specifications*



DIMENSIONS (inch)

See Drawing	CAPACITY (lb-in) 25 to 100	500 to 1K	1K to 2K	5K to 10K	20K to 40K	50K to 100K	200K to 375K	750K to 1.5M	3M to 4M
①	0.187	0.187	0.250	0.375	0.625	0.750	1.000	Note 3	Note 4
②	1.125	1.625	1.750	2.750	3.500	4.500	6.500	8.000	12
③	1.50	2.00	2.31	3.69	4.13	5.13	7.56	9.00	13.50
④	0.625	0.750	1.000	1.500	2.500	3.000	4.500	7.750	9.375
⑤	2.25	2.25	2.625	2.625	4.25	4.25	4.25	7.00	8 50
⑥	5.50	5.50	6.25	6.25	10.00	10.00	10.00	15.50	18.50
⑦	5.50	5.50	5.50	5.50	8.75	8.75	7.75	18.00	20 00
⑧	2.250	2.250	2.500	2.500	5.000	5.000	5.000	8.000	9.750
⑨	8.50	9.50	10.00	12.75	17.00	19.00	23.00	36.00	47.00
⑩	2.688	2.688	2.969	2.969	4.875	4.875	5.125	7.875	9.500
⑪	1.500	1.500	1.500	1.500	2.813	2.813	2.813	7.875	8.875
⑫	3.469	3.469	3.969	3.969	7.938	7.938	8.500	13.875	17
⑬	90°	90°	90°	90°	0°	0°	0°	0°	0°
⑭	.254	.304	.406	.609	Note 2	Note 2	Note 2	Note 2	Note 2
⑮	4.250	4.750	5	6.375	8.500	9.500	12.844	18	23.500

1. Tolerance on ④ diameter is +0.0000/-0.0005 for diameters ≤ 2.500 inch and +0.000/-0.001 for diameter ≥ 2.500 inch.
2. Slotted 0.531 inch wide by 1.125 inch long.
3. Dual rectangular keyways at each end are 2.000 inch wide by 1.500 inch high.
4. Dual rectangular keyways at each end are 2.500 inch wide by 1.750 inch high.

SPECIFICATIONS

PARAMETERS	MODEL	
	STANDARD	ENHANCED
ACCURACY – (MAX ERROR)		
Combined Error–%FS	±0.1	±0.07
Nonlinearity–%FS	±0.1	≤±0.05
Hysteresis–%FS	±0.1	±0.05
Nonrepeatability–%FS	±0.05	±0.02
Stability, 6 Months–%FS	±0.15	±0.10
Rotational Effect on Zero–%FS	±0.05	±0.02
TEMPERATURE		
Effect on Zero–%FS/˚F	±0.002	0.001
Span–%/˚F	±0.002	±0.001
Compensated Range–˚F	+75 to +175	
Minimum Usable Range–˚F	-25 to +185	
Storage Range–˚F	-65 to +225	
ELECTRICAL		
Fully bi-directional, dual output with common characteristics, as follows		
Clockwise (CW) Torque	+1.5 mV/V	
Counterclockwise (CCW) Torque	-1.5 mV/V	
Zero Balance	±1% of FS, nominal	
Excitation (MAX)	3-6 V rms, 3 kHz ±10% sine wave only	
Readout	Strain gage carrier amplifier	

*Specifications apply to mV/V models only. When selecting the **ON-BOARD SIGNAL CONDITIONING** or **DIGITAL OUTPUT** options please contact factory for specification details.

TORQUE RANGE		SPEED RATING	SHAFT* STIFFNESS	ROTATING INERTIA	MAX. WT.
[lb-in]	[Nm]	[rpm]	[lb-in/radian]	[oz.-in sec^2]	[lbs]
25	2.82	0 to ±15,000	2,150	0.034	6
50	5.65	0 to ±15,000	6,030	0.034	6
100	11.3	0 to ±15,000	14,700	0.034	6
200	22.6	0 to ±15,000	18,900	0.034	6
500	56 5	0 to ±15,000	57,900	0.035	7
1K	113	0 to ±15,000	70,100	0.035	7
1K	113	0 to ±8,500	197,100	0.15	11
2K	226	0 to ±8,500	260,000	0.15	11
5K	565	0 to ±8,500	580,000	0.19	14
10K	1,130	0 to ±8,500	605,000	0.19	14
20K	2,260	0 to ±8,000	1,800,000	2.3	105
40K	4,520	0 to ±8,000	2,700,000	2.4	105
50K	5,650	0 to ±6,000	5,700,000	2.8	115
100K	11,300	0 to ±6,000	7,100,000	3	115
200K	22,600	0 to ±3,600	29,000,000	11	150
375K	42,400	0 to ±3,600	38,000,000	11.7	150
750K	84,700	0 to ±1,800	115,000,000	205	775
1.5M	169,000	0 to ±1,800	136,000,000	212	790
3M	339,000	0 to ±1,200	221,000,000	567	1455
4M	452,000	0 to ±1,200	227,000,000	582	1475

*Stiffness is conservatively rated and includes both the torsion section and shaft ends.