





# **TFC/TFD Series**

### Coupling-based rotary torque transducer system.

The TFC and TFC models have been developed from the original TF series, which was one of the first spacer coupling torque transducers that we instrumented in the 1980's. Strain gauges are built into a coupling spacer with proprietary flexible elements, adaptor rings and hubs to provide a complete torque measuring unit.

Various signal-conditioning packages are available to suit your specific requirements and bench mounted displays (for torque only) are supplied as standard.

The TF's sealed data transmission system can be used in the presence of water, oil, grease and dust making it robust and durable for the harshest of conditions. No bearings are used so the unit is effectively maintenance-free. All hubs are parallel bored as required before despatch. The TF can be supplied as standard or it can also be designed to your specific requirements.

For pricing, availability or further technical information about the TFC/TFD series of rotary torque transducers, contact us via our website at <a href="www.crane-electronics.com">www.crane-electronics.com</a> or get in touch via email at <a href="mailto:sales@crane-electronics.com">sales@crane-electronics.com</a>.

#### **Technical Specification**

**Accuracy:** +/-0.5% of FS

(Bi-directional)

Calibration Level: Specified on certificate

Overload Capacity: 150% FS
Operating Temp: +5 to +65°C

Operating Temp: +5 to +65°C
Optional Temp Range: -0 to +100°C

Output Signal at zero torque: 10 kHz

Nominal Output at +FS torque: 15 kHz Nominal Output at -FS torque: 5kHz

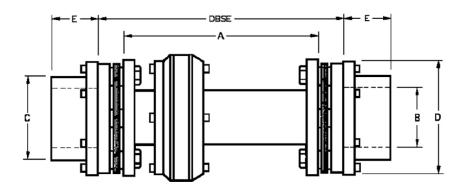
Non-linearity: ±0.2% FS

**Repeatability:**  $\pm 0.05\%$  FS **Hysteresis:**  $\pm 0.1\%$  FS

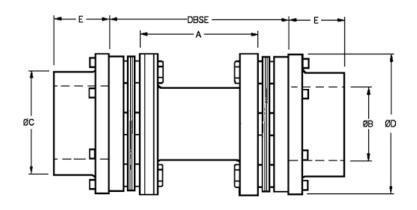
**Zero Shift:** ±0.01% FS/°C

**Span Shift:**  $< \pm 0.02\%$ FS/°C

### **Dimensions**



TFC	Rated Torque	Max Speed		Min	ØВ	С	D	Е
	(Nm)	Balanced	Unbalanced	DBSE	(Max)	١	ט	_
0011	125	25000	7000	190	36	54	86	40
0027	315	20000	6000	215	46	69	105	45
0060	715	16500	5200	240	65	90	130	55

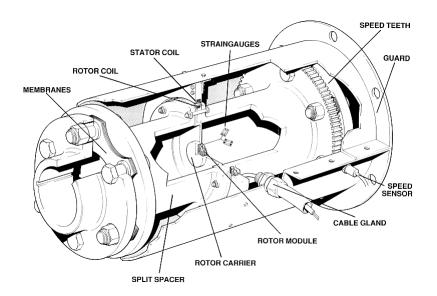


TFC	Rated Torque (Nm)	Max Speed		Min	ØВ			-
		Balanced	Unbalanced	DBSE	(Max)	С	D	E
0110	1300	14400	4800	225	80	112	152	62
0180	2100	12000	4400	255	90	131	179	70
0300	2900	15300	5700	255	84	119	155	84
0500	4800	12800	5000	275	100	143	185	100
0750	7000	11300	4600	295	110	161	209	110
1050	10000	10100	4200	315	134	187	235	134
1500	14300	9000	3900	340	148	208	262	148
2000	19000	8200	3700	365	161	225	288	161

5-10-15 kHz standard output, other options are available.

PC's data cards with various software options.

Panel / desk mounted displays with  $\pm 10$ vdc, 4 - 12 - 20mA outputs, relays, RS232.



## **System Schematic**

