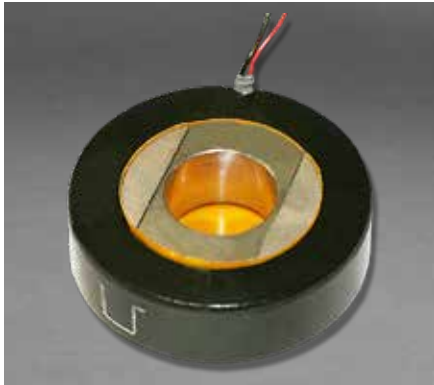




## TD SERIES FRAMELESS BRUSHLESS DC LIMITED ANGLE TORQUE MOTORS



The TD motors are used in applications that require limited angle rotation with a constant torque throughout the excursion angle.

The toroidal motors have the dual advantage of being brushless and providing constant, ripple-free torque sustained through the required angle. Eliminating the slot cogging effect makes toroidal designs desirable in many applications, especially in incremental motion systems and in the field of control instrumentation. In addition, lower rotor inertia motors may be substituted where a high mechanical time constant was incorporated to filter torque ripple.

The motors are supplied as a direct drive rotor / stator frameless part set that is directly attached to the load. This form of attachment eliminates backlash and increases servo stiffness for an optimized direct drive system.

The TD motors consists of a wide range of sizes, outside diameters from 0.6 to over 5 inches (15.24 to 127 mm)

Our engineers design custom solutions. If our existing models don't meet your needs, we will tailor them or provide options for a best value solution to meet your exact requirements.

### FEATURES

- Compact
- Peak torques from 1 to over 400 oz-in (0.007 to 2.8 N.m)
- Double insulated high temp magnet wire minimizes leakage current and provides good thermal resistance
- Rare earth magnets
- Large through bores

### BENEFITS

- Operate over a wide range of speeds - not limited to AC frequency
- Extremely quiet operation with long life capability
- Motor life is not limited to brush or commutator life
- Efficient operation without losses associated with brushes

### TYPICAL APPLICATIONS

- Speed and rotation control systems
- Gimbals for FLIR and inertial navigation systems
- Stabilized gun and fire control systems for combat vehicles
- Fire control radars for land and shipboard defense
- Cockpit instrumentation for military and commercial aircraft
- Space and vacuum instruments, actuation systems and momentum wheels