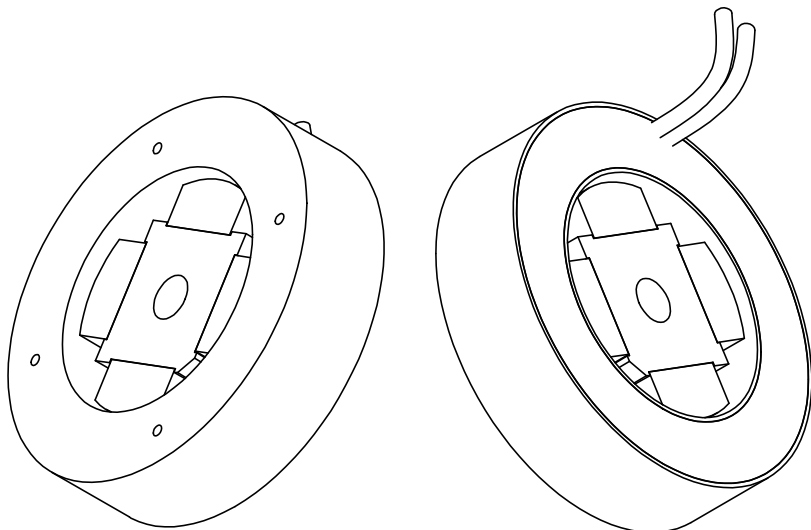
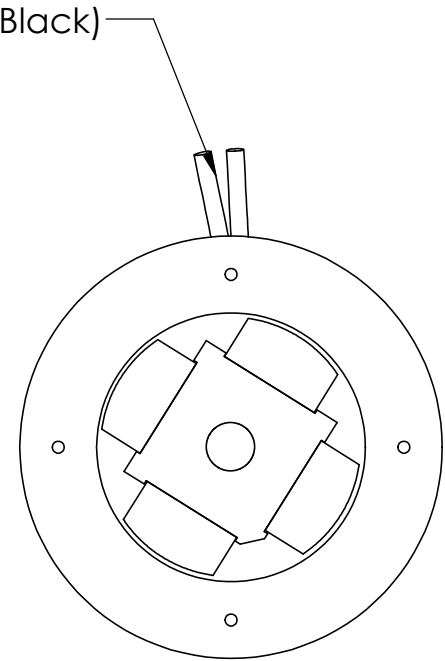
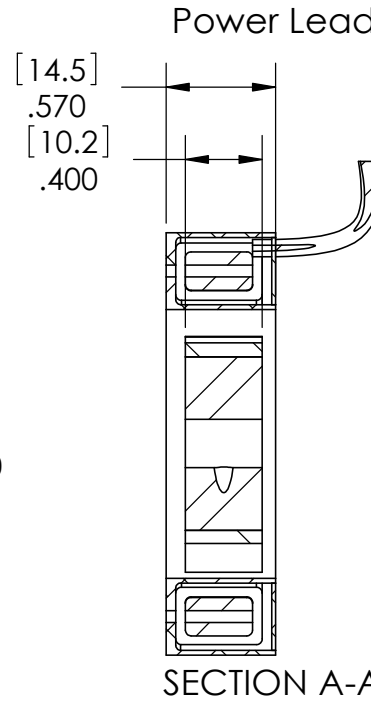
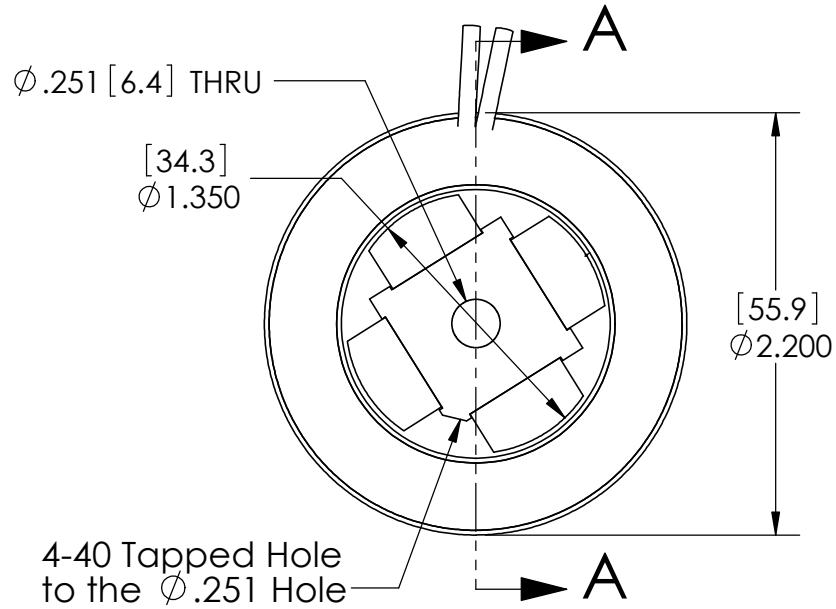


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UNLESS SPECIFIED OTHERWISE:
 All dimensions are in inches
 Standard Tolerances are as follows
 .XXX $\pm .005$ ANGLES $\pm 1^\circ$
 .XX $\pm .010$ FILLETS .010
 X $\pm .020$ CORNERS .010
 Remove All Burrs and Sharp Edges

MATERIAL			
FINISH			
DRAWN	DATE	APPROVED	DATE
JRM	11-17-05	MPW	11-17-05

TITLE			
TMR-020-22-010-4X			
DWG #	REV	SHEET	
80-0125	A	1 of 2	

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LIMITED ANGLE TORQUE MOTOR SPECIFICATIONS

Motor P/N	TMR-020-22-010-4X	
Device Type	MR	
Stroke	20 degrees	0.35 radians
Radial Clearance	0.020 in	0.5 mm
Housed with Bearings	No	
Rotor Inertia	0.43 oz-in ²	7.9 E-6 kg-m ²
Total Mass	0.30 lbs	135 grams
Resistance @ 20C	4.5 ohms	
Inductance @ 20C	1.3 mH	
Electrical Time Constant	0.29 msec	
Motor Constant	3.7 in-oz/sqrt(watt)	2.6 N-cm/sqrt(watt)
Torque Constant	8.0 in-oz/amp	5.6 N-cm/amp
Back EMF	5.9 E-3 V/rpm	5.6 E-2 V/rad/sec
Torque @ 100% Duty	10 in-oz	7.1 N-cm
Power @ 100% Duty	7 watts	
Current @ 100% Duty	1.3 amps	
Torque @ 10% Duty	30 in-oz	21 N-cm
Power @ 10% Duty	66 watts	
Current @ 10% Duty	3.8 amps	

* Values based on calculations and are for reference only, actual values will be confirmed upon shipment. As a rule of thumb the values contained are +/- 10% unless otherwise stated within the table.

TITLE		
TMR-020-22-010-4X		
DWG #	REV	SHEET
80-0125	A	2 of 2