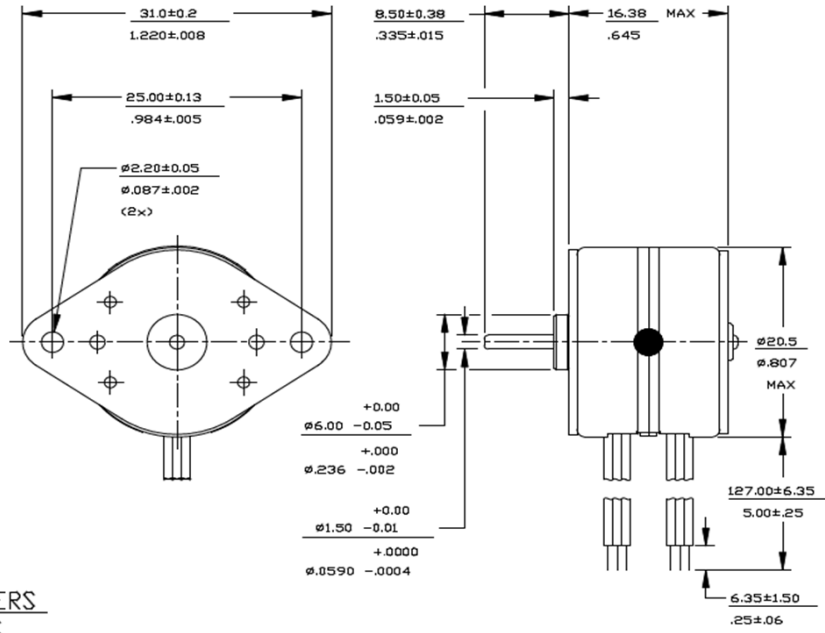


20M020D

RoHS Compliant

Ø20mm

1.55 mNm



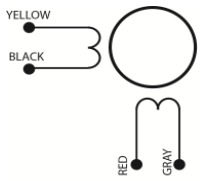
DIMENSIONS: MILLIMETERS
INCHES

20M020D

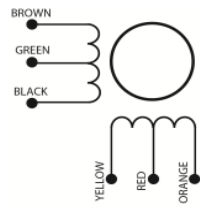
Electrical Data	20M020D1U Unipolar	20M020D2U Unipolar	20M020D1B Bipolar	20M020D2B Bipolar	
1 Operating Voltage	5	12	5	12	VDC
2 Resistance per Phase, ± 10%	20.0	115.2	20.0	115.2	Ohms
3 Inductance per Phase, typ	3.9	20.3	7.8	52.8	mH
4 Rated Current per Phase *	0.25	0.10	0.25	0.10	A
Coil independent parameters					
5 Holding Torque, MIN *	7.77 (1.1)	7.77 (1.1)	10.95 (1.55)	10.95 (1.55)	mNm (oz-in)
6 Detent Torque, Max	3.53 (0.5)	3.53 (0.5)	3.53 (0.5)	3.53 (0.5)	mNm (oz-in)
7 Rotor inertia	0.41 (0.00224)	0.41 (0.00224)	0.41 (0.00224)	0.41 (0.00224)	(gcm ²) (oz-in-s ²)
8 Step Angle	18.0	18.0	18.0	18.0	Degree
9 Absolute accuracy 2 ph. On, Full step	± 1.5	± 1.5	± 1.5	± 1.5	Degree
10 Steps per Revolution	20	20	20	20	
11 Ambient Temp Range (operating)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	°C (°F)
12 Maximum Coil Temperature	130 (266)	130 (266)	130 (266)	130 (266)	°C (°F)
13 Bearing Type	Sintered Bronze Sleeve	Sintered Bronze Sleeve	Sintered Bronze Sleeve	Sintered Bronze Sleeve	
14 Insulation Resistance at 500 VDC	100	100	100	100	Mohms
15 Dielectric Withstanding Voltage	450 for 2 seconds	450 for 2 seconds	450 for 2 seconds	450 for 2 seconds	VAC
16 Weight	23.5 (0.832)	23.5 (0.832)	23.5 (0.832)	23.5 (0.832)	g (oz)
17 Leadwire	AWG 28, UL 1429	AWG 28, UL 1429	AWG 28, UL 1429	AWG 28, UL 1429	

All Motor Data Values at 20°C Unless Otherwise Specified

* Energize at Rated Current, 2 Phase On



BIPOLAR COIL				
RED	GRAY	YELLOW	BLACK	
+	-	+	-	VIEWED FROM OUTPUT SHAFT
+	-	-	+	
-	+	-	+	
-	+	+	-	
+	-	+	-	



UNIPOLAR COIL				
YELLOW	ORANGE	BROWN	BLACK	RED/GREEN
+	-	+	-	+
+	-	-	+	+
-	+	-	+	+
-	+	+	-	+
+	-	+	-	+