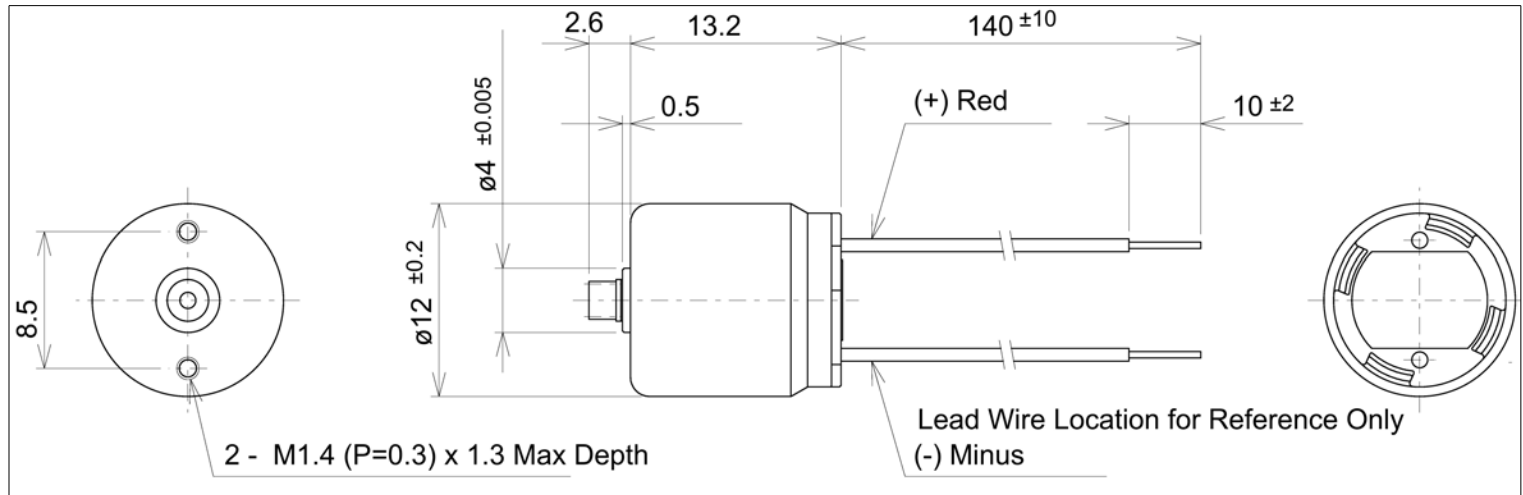


Coreless DC Motor - 12 mm Ø x 13



C12P01SX000 0.06 Watts Peak

Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	1.2 Volts	1.2 Volts	1.2 Volts
No-Load Speed	11,000 rpm	11,000 rpm	11,000 rpm
Stall Torque	0.3 mNm	3.0 gcm	0.04 oz-in
No-Load Current	0.057 Amps	0.057 Amps	0.057 Amps
Peak Output Power	0.06 Watts	0.06 Watts	0.06 Watts
Torque Constant	0.84 mNm/A	8.62 gcm/A	0.12 oz-in/A
Terminal Resistance	4.00 Ohms	4.00 Ohms	4.00 Ohms
Back-EMF Constant	0.09 V/krpm	0.09 V/krpm	0.09 V/krpm
Inductance	0.012 mH	0.012 mH	0.012 mH
Rotor Inertia	0.066 kg-m ² x10 ⁻⁷	0.066 gm cm ²	0.009 x10 ⁻⁴ oz in sec ²
Mechanical Time Constant	37.0 msec	37.0 msec	37.0 msec
Slope of Speed/Torque Curve	43,394.1 rpm/mNm	3,666.7 rpm/gcm	306,429.8 rpm/oz-in
Speed Constant	11,301 rpm/Volt	11,301 rpm/Volt	11,301 rpm/Volt
Motor Constant	0.42 mNm/√Watt	4.31 gcm/√Watt	0.06 oz-in/√Watt

Ratings below are at 60°C. At room temperature the ratings would be considerably higher.

Rated Power @ 7,700 rpm	0.04 Watts	0.04 Watts	0.04 Watts
Rated Torque @ 7,700 rpm	0.1 mNm	0.7 gcm	0.01 oz-in
Rated Current @ 7,700 rpm	0.135 Amps	0.135 Amps	0.135 Amps

Part Number: How to Order C12P01SX000 Characteristics - Specifications at 22 °C

Radial Load Rating	Radial Play	Max Temperature	65 °C
Radial Load Distance	Thrust Play	Min Temperature	-10 °C
Axial Load	Magnet Type NdFeB	Max Winding Temp	100 °C
Press Fit Force - Max	Bearing Type Sleeve Bearings	Mass	7.0 grams

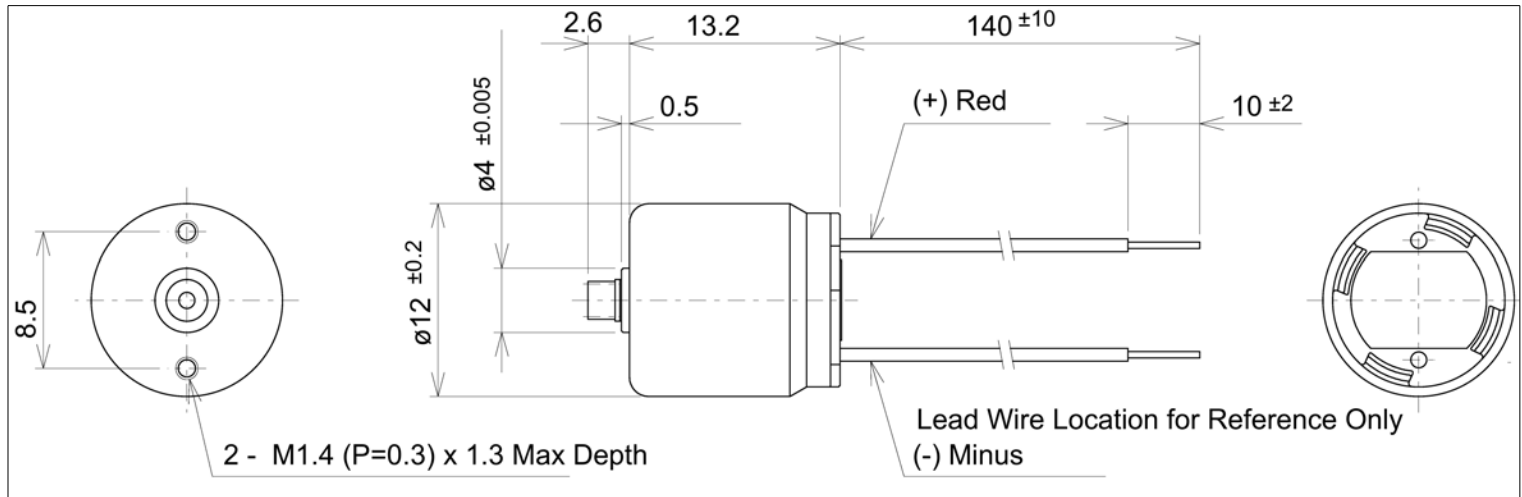
Gearbox Options 12 mm Precision Spur Gearbox
 Encoder Options Must select 10 mm Ø or 13 mm Ø Coreless DC Motor series for encoder option.
 Options - Other Wire Lead Type/Length, Connectors, Lubrication. Windings. Shaft.

Coreless DC Motor - 12 mm Ø x 13



C12P03SX000 0.22 Watts Peak

Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	3.0 Volts	3.0 Volts	3.0 Volts
No-Load Speed	14,000 rpm	14,000 rpm	14,000 rpm
Stall Torque	0.7 mNm	7.0 gcm	0.09 oz-in
No-Load Current	0.030 Amps	0.030 Amps	0.030 Amps
Peak Output Power	0.22 Watts	0.22 Watts	0.22 Watts
Torque Constant	1.87 mNm/A	19.07 gcm/A	0.26 oz-in/A
Terminal Resistance	8.60 Ohms	8.60 Ohms	8.60 Ohms
Back-EMF Constant	0.20 V/krpm	0.20 V/krpm	0.20 V/krpm
Inductance	0.048 mH	0.048 mH	0.048 mH
Rotor Inertia	0.066 kg-m ² x10 ⁻⁷	0.066 gm cm ²	0.009 x10 ⁻⁴ oz in sec ²
Mechanical Time Constant	16.2 msec	16.2 msec	16.2 msec
Slope of Speed/Torque Curve	21,458.2 rpm/mNm	2,000.0 rpm/gcm	151,528.5 rpm/oz-in
Speed Constant	5,106 rpm/Volt	5,106 rpm/Volt	5,106 rpm/Volt
Motor Constant	0.64 mNm/√Watt	6.50 gcm/√Watt	0.09 oz-in/√Watt

Ratings below are at 60°C. At room temperature the ratings would be considerably higher.

Rated Power @ 11,600 rpm	0.12 Watts	0.12 Watts	0.12 Watts
Rated Torque @ 11,600 rpm	0.1 mNm	1.5 gcm	0.02 oz-in
Rated Current @ 11,600 rpm	0.110 Amps	0.110 Amps	0.110 Amps

Part Number: How to Order C12P03SX000 Characteristics - Specifications at 22 °C

Radial Load Rating	Radial Play	Max Temperature	65 °C
Radial Load Distance	Thrust Play	Min Temperature	-10 °C
Axial Load	Magnet Type NdFeB	Max Winding Temp	100 °C
Press Fit Force - Max	Bearing Type Sleeve Bearings	Mass	7.0 grams
Gearbox Options	12 mm Precision Spur Gearbox		
Encoder Options	Must select 10 mm Ø or 13 mm Ø Coreless DC Motor series for encoder option.		
Options - Other	Wire Lead Type/Length, Connectors, Lubrication. Windings. Shaft.		

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A - June 2013

Specifications Subject to change without notice

