



Robust design –High reliability and long life maintenance free ball bearing construction.

Technical drawing of a 4-pin connector. The drawing shows a side view and a top view. The side view indicates a total length of 15.5 max. and a pin 1 location. The top view shows a circular base with a diameter of 17 and a central hole with a diameter of 0.25. The base is mounted on a PCB with a thickness of 1.34. The base is secured with four screws (M2 4x) with a maximum depth of 3.5mm. The base is also marked with a 60° angle. The drawing includes a callout for a 0.04 tolerance and a callout for a 0.25 tolerance.

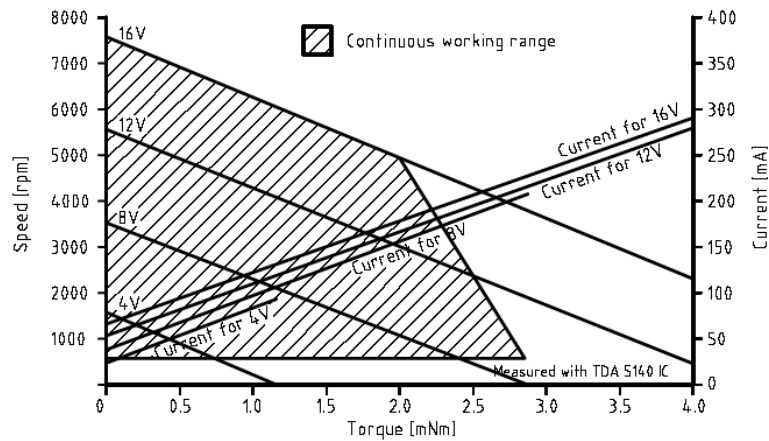
Operating temperature range	[°C]	0 /+50
Insultation resistance at 500 V	[M Ohm]	min. 1
Rotor Inertia	[kgm ²]	0.53x10 ⁻⁶
Mass of motor	[g]	16
Maximum radial load 8 mm from mounting front at 6000 rpm (no axial load towards flange)	[N]	3.0
Maximum axial load at 6000 rpm -towards flange (no radical load)	[N]	2.0
-from flange	[N]	1.0

Electrical Connection

Signals

Pin no.	Description
1	Center tap
2,3,4	Phase leads

Performance Curve



Sensorless commutation – Conform to industry standard 60° electrical. Motor using sensorless drive technology, to be used in combination with back-EMF commutating motor-IC (likes Philips TDA 51... family)

For thermal reasons it is advised to mount the motor on a heat conducting frame if high output power is desired.



Features

Brushless DC motor with laminated 9 coil stator and 12 pole rotor fitted with 4 wire flat cable and connector.

High Performance- State of the art design offers exceptional performance in a small size. For applications requiring even greater performance, options include: windings customized to meet your exact power requirements.

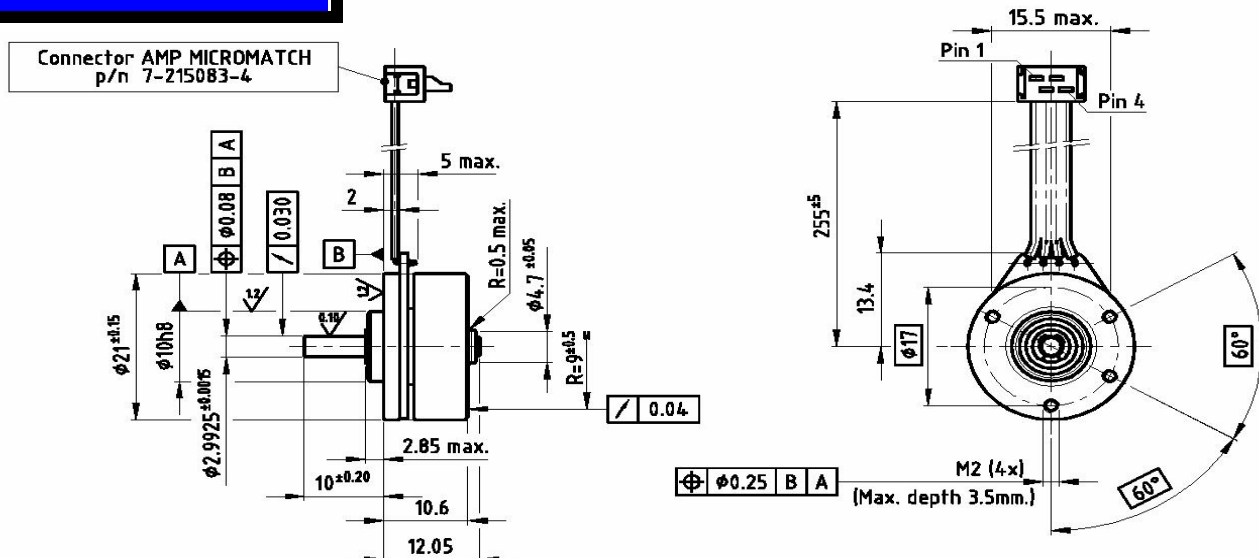
Speed Stability- Low instantaneous Speed Variation (ISV) due to outside spin rotor.

Low Torque Ripple- Minimizes detent torque by utilizing a specially designed 9 slot stator and 12 pole magnet.

Mounting- Industry standard 17 mm coreless DC motor mounting pattern interchangeable with standard DC motor.

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Dimensions in Millimeters



Motor Data

Motor Order Number	4322 016 21001	
Nominal Voltage	[V]	10
No load Speed	[rpm]	10000
Torque constant	[mNm/A]	7.9
Stator resistance between two phases	[Ohm]	10
Stator inductance between two phases	[mH]	1.0
Mechanical time constant	[ms]	95
Max. winding temperature	[°C]	90
Thermal resistance from winding to ambient	[K/W]	62
Thermal resistance from winding to ambient with cooling plate (aluminum, 100x200x2)	[K/W]	32

Operating temperature range	[°C]	0 /+50
Insulation resistance at 500 V	[M Ohm]	min. 1
Rotor Inertia	[kgm ²]	0.53x10 ⁻⁶
Mass of motor	[g]	16
Maximum radial load 8 mm from mounting front at 6000 rpm (no axial load towards flange)	[N]	3.0
Maximum axial load at 6000 rpm -towards flange (no radial load) -from flange	[N] [N]	2.0 1.0

For information contact: **MJK, Inc.** 396 Chase Parkway . Waterbury, CT 06708

Telephone: 1-203-798-9771 • **FAX:** 1-203-790-5666

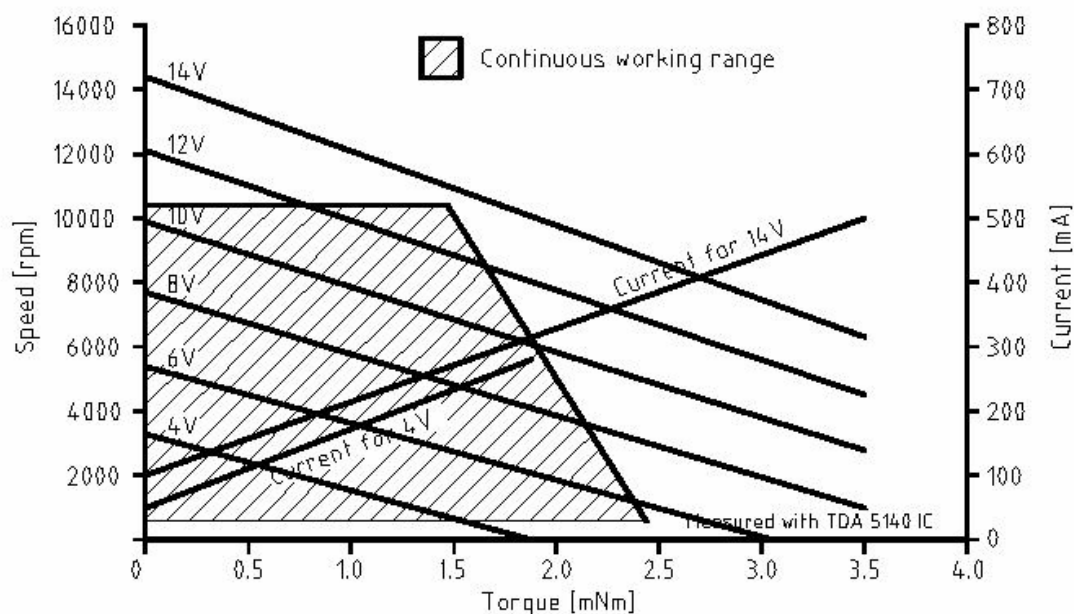
Internet: www.premotec.com • **Email:** mjk2inc@snet.net

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Signals

Pin no.	Description
1	Center tap
2,3,4	Phase leads

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