

BEI Kimco Magnetics

A Partner for Life

When you join the BEI Kimco Magnetics family of satisfied customers, you acquire a life-long partner. We become an extension of your engineering department, collaborating with you to meet every aspect of your program's requirements, from inception to maturity.

One of the greatest on-going services BEI Kimco Magnetics can provide our customers is to be the magnetics technology leader, using our findings to develop the most reliable, dependable and cost-effective products available.

Product and Market Leadership

As a company which successfully transitioned from Military to Commercial product offerings some years ago, BEI Kimco Magnetics is in the unique position of possessing both leading-edge capabilities and cost-effective manufacturing know-how. This special combination of factors has enabled BEI Kimco Magnetics to attain a market leadership position in the development and proliferation of small-size Brushless DC Motor technology.

In addition, BEI Kimco Magnetics has revolutionized the small displacement linear and rotary motion market by offering cost-effective, hysteresis free, no-preferred-position controllable voice coil actuators. They provide the ideal solution to your limited stroke, direct-drive servo applications. This exciting development occurs at just the right time, when customers are demanding new alternatives to the old high-maintenance, low-reliability stand-bys.

And, BEI Kimco Magnetics continues to build value into our already value-added product line. BEI Kimco now offers our patented, bi-directional, two-wire motor-integral electronic commutation drives, and patented, high force-density interleaved magnetic circuit voice coils... delivering the best in new product technology to our applications.

Brushless DC Motors

BEI Kimco Magnetics manufactures a wide range of Brushless DC Motors.

The power rating of these brush-free, "inside-out" motors includes sub-fractional, fractional and 1 to 2 horsepower outputs. Stand-alone and motor-integral electronic commutation (EC) drives are also available for any application where customers choose not to design their own. Most drives may be ordered with closed-loop velocity control capabilities.

Voice Coil Actuators

The BEI Kimco Magnetics Voice Coil Actuator line includes linear and rotary motion designs. Products range from peak ratings of a few ounces of force or a few ounce inches of torque to 500 pounds of force or 1500 ounce inches of torque. More exotic designs such as, multi-axis and spherical configurations are available from BEI Kimco, along with especially challenging designs which combine all of the above.

Professional Customer Service

At BEI Kimco Magnetics, our Application Engineers and our Customer Service Representatives are located in the same office. They are available to support your account right from the start and to find the answer to any questions you may have. You can discuss your application requirements, identify the exact product or design to deliver the performance parameters indicated in your specifications, place your order and receive superior follow-up service... all from highly experienced Customer Service Representatives and Application Engineers. And, years after the sale, these specialists will continue to keep you current on advances in technology and changing market conditions. BEI Kimco Magnetics will be a partner in your success, today and tomorrow.

Working with BEI Kimco Magnetics is Easy

Our Field Sales Representatives are tasked to be the voice of our customers. Each representative of BEI Kimco Magnetics is hand-picked because he or she possesses the years of experience and in-depth working knowledge of product and applications necessary to meet BEI Kimco's stringent standards. You can rely upon them to speak accurately for you, knowing that they have earned the respect of our inside engineers as top-notch professionals.

We have also strategically located our Field Sales Representatives throughout the United States, so that one is readily available to meet with you and deliver the kind of personal service your company expects.

Please visit our website
www.beikimco.com
for additional information.

Products



Brushless DC Motors

	DIH1-18-BDVA	DN34-2L-CDVA	DN34-3L-CDVA	DN40-3L-DDVA	DIH8-21-BBVA	DIH23-22-BDVA	DIH23-25-BBVA	DIP20-06-HPZ	DIP20-09-HPZ	DIH37-12-02AZ
Peak Torque (Nm)	0.057	0.852	2.485	2.485	0.256	0.568	1.065	0.099	0.305	1.136
Continuous Stall Torque (Nm)	0.021	0.355	0.959	1.243	0.096	0.199	0.327	0.030	0.067	0.355
Maximum Speed (rpm)	18000	18000	18000	12000	14000	14000	8000	14000	12000	8000
Motor Constant (Nm/√watts)	0.008	0.079	0.165	0.202	0.020	0.044	0.064	0.012	0.023	0.063
Rotor Inertia (kg-m ²)	2.911E-07	7.881E-06	0.0001562	0.000267	3.692E-06	1.278E-05	2.059E-05	3.266E-06	6.461E-06	0.0000923
Diameter (mm)	27.94	86.11	86.11	101.60	45.72	57.15	76.20	50.80	50.80	92.08
Axial Length (mm)	46.99	50.80	81.28	83.82	53.34	55.88	63.50	20.32	27.94	28.96
Weight (gms)	87.88	861.82	1871.07	2438.06	283.50	527.30	952.54	59.53	127.57	1133.98

Drive

	RA685101
Supply Voltage (VDC)	11 to 36 VDC
Nominal Current	10 Amps
Max Current	14 Amps
Comments	0-10V & PWM Input



Linear Actuators

	LA05-05-000A	LA05-08-002Z	LA08-10-000A	LA10-08-000A	LA10-12-027A	LA12-17-000A	LA12-12-000A	LA14-17-000A	LA15-16-028A	LA15-25-000A	LA15-35-000A	LA16-19-001A	LA16-27-000A	LA17-28-000A	LA18-12-000A	LA19-40-000A	LA23-35-001A	LA24-28-000A	LA25-42-000A	LA28-22-000A	LA30-43-000A	LA30-77-000A	LA35-67-000A	LA50-85-002Z
Peak Force (N)	0.70	37.80	6.67	6.67	13.34	44.48	15.57	22.24	88.69	44.48	66.72	22.41	60	71.17	44.48	22.24	44.82	111.21	266.89	266.89	444.82	444.82	1378.90	1000.80
Continuous Stall Force (N)	0.31	15.10	1.96	2.71	4.94	15.57	7.12	7.12	24.47	11.57	18.90	9.34	17	28.47	15.12	8.54	16.20	44.93	86.30	87.74	185.05	135.23	282.91	472.84
Total Stroke (mm)	1.02	10	4.06	5.08	9.14	7.62	6.35	10.16	6.35	25.40	101.60	12.70	6.00	15.24	6.10	45.72	57.15	16.51	25.40	11.43	25.40	38.10	31.75	25.40
Actuator Constant (N/√watt)	0.289	4.130	0.970	1.148	1.766	4.386	2.358	2.180	5.827	2.936	4.003	2.313	4.448	6.895	4.849	2.370	3.610	7.517	13.789	13.789	21.796	17.793	28.024	57.827
O.D./Width (mm)	12.7	12	19.05	24.13	25.4	30.48	31.62	35.56	38.10	37.59	38.10	39.87	40.60	58.42	44.45	47.63	57.15	60.33	63.50	69.85	76.20	76.20	107.95	127
Length (Ø mid-stroke) (mm)	12.7	74	24.51	19.69	28.58	43.18	28.58	41.90	39.62	65.41	165.10	47.62	46	66.04	28.40	101.60	139.70	50.80	105.97	55.88	112.27	198.12	169.93	163.32

Rotary Actuators

	RA09-1-002A	RA54-18-000A	RA62-10-001A	RA68-12-001A	RA68-19-000A
Peak Torque (Nm)	0.226	1.85	0.8473	1.2	7.06
Continuous Stall Torque (Nm)	0.093	0.798	0.396	0.649	1.76
Total Excursion Angle (degrees)	32	7.5	30	20	14
Actuator Constant (Nm/√watt)	0.031	0.209	0.097	0.158	0.376
Width (mm)	27.43	45.72	30.48	30.22	46.48
Height (mm)	45.21	60.96	38.1	45.21	55.88

BEI Kimco Magnetics

is continually improving our product line and reserves the right to make design alterations without prior notification.

Contact us or your local sales office for latest design specifications, additional product information, and your special design requirements.

Design & Manufacturing Excellence

BEI Kimco Magnetics' facility in Vista, California houses the latest in Engineering, Modeling, Manufacturing, Testing and Quality Control equipment and is staffed by highly experienced personnel. Our BEI Sensors de Mexico facility, located in Tijuana, Mexico, is staffed to provide quality and cost-efficient volume products for our customers' demands.

To handle the broad range of performance requirements reflected in our products, our manufacturing processes span the spectrum of techniques. Soft-tooled laminations and hand-wound stators are made to meet the exacting requirements of high-performance motors. Automated stack production and stator winding equipment are utilized to deliver reliable motors and voice coil actuators for cost-sensitive applications.

BEI Kimco works to Quality, Reliability and Inventory Management System standards that are consistent with the programs of our customers.

In Engineering, complementary resources such as, Finite Element Analysis (FEA) and Computer Aided Design (CAD) are interactively utilized to develop leading-edge products that perform to our customers' specifications.

BEI Kimco Magnetics also maintains a complete Model Shop, which operates under compressed time management for rapid prototyping and production support. Through on-going development of manufacturing jigs, fixtures and cost-reduction techniques, BEI Kimco Magnetics is able to respond in a highly competitive manner to your growth requirements.

Two Testing Laboratories also play a crucial role in ensuring the success of your program. The Engineering Testing Lab aids in proving out new designs, while the Production Lab ensures delivery of a product that you can count on to work every time. This combination of resources has rewarded BEI Kimco Magnetics with "Ship-to-Line" supplier status ratings from some of our most exacting customers.

All BEI Kimco Magnetics products are manufactured under ISO 9001:2000 standards and requirements to assure compliance with our customers' objectives and attainment of optimal performance and reliability measures.



**BRUSHLESS
DC MOTORS
AND DRIVES**

**LINEAR
AND ROTARY
VOICE COIL
ACTUATORS**

BEI Kimco Magnetics

is an operation of Custom Sensors & Technologies (CST), which is comprised of the industry-leading brands including Crouzet, Kavlico, Crydom, and the former divisions of BEI Technologies including Newall and Systron Donner. CST provides sensors, controls, and actuation products for the Industrial, Transportation, and Aerospace & Defense markets.



BEI Kimco Magnetics
2470 Coral Street, Building D
Vista, CA 92081-8430, USA
USA Toll-Free (800) 572 7560
Fax: +1 (760) 597 6320
Email: sales@beikimco.com

