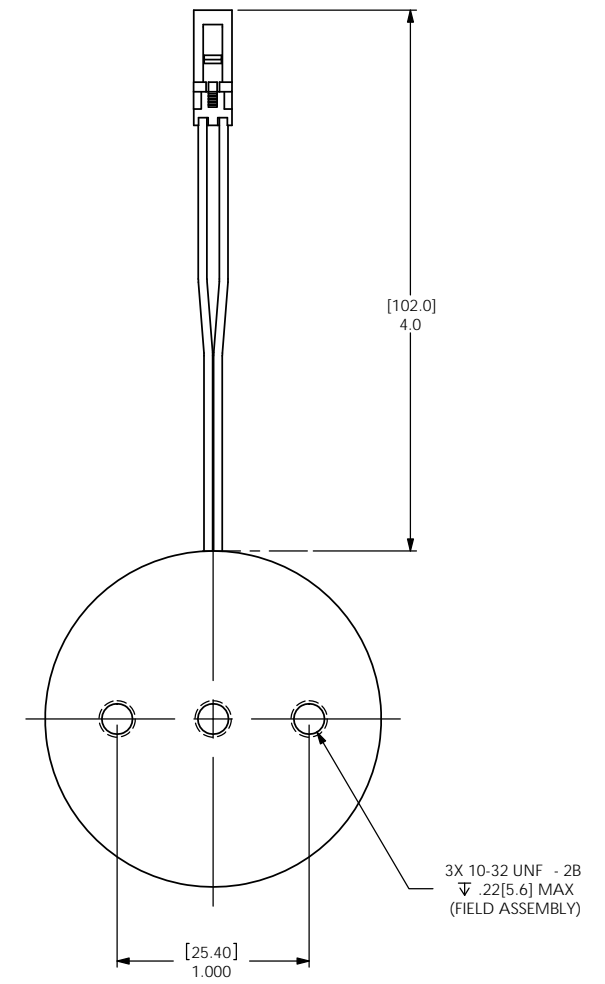
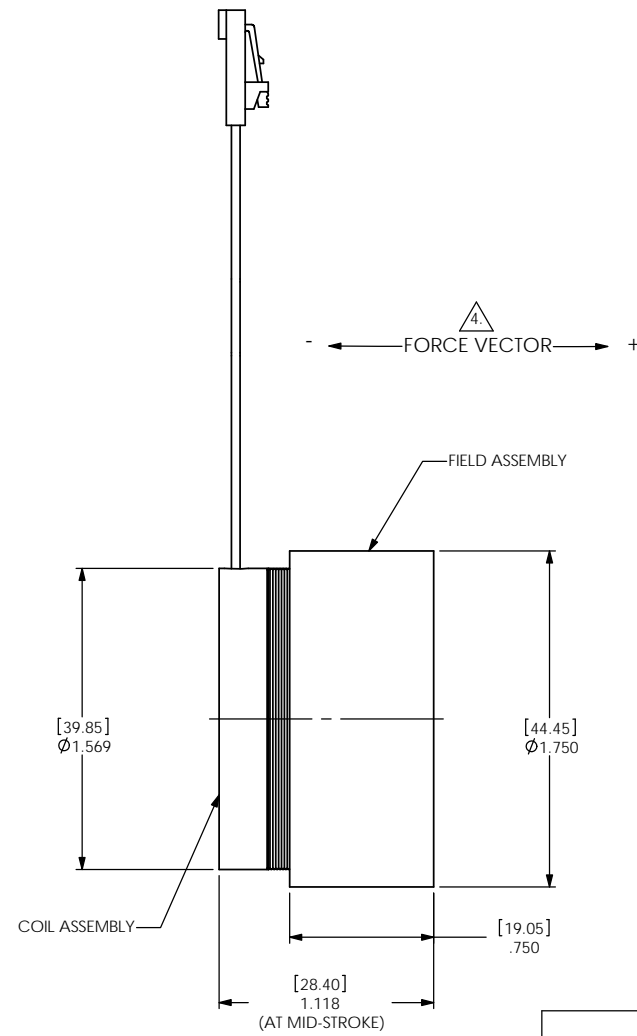
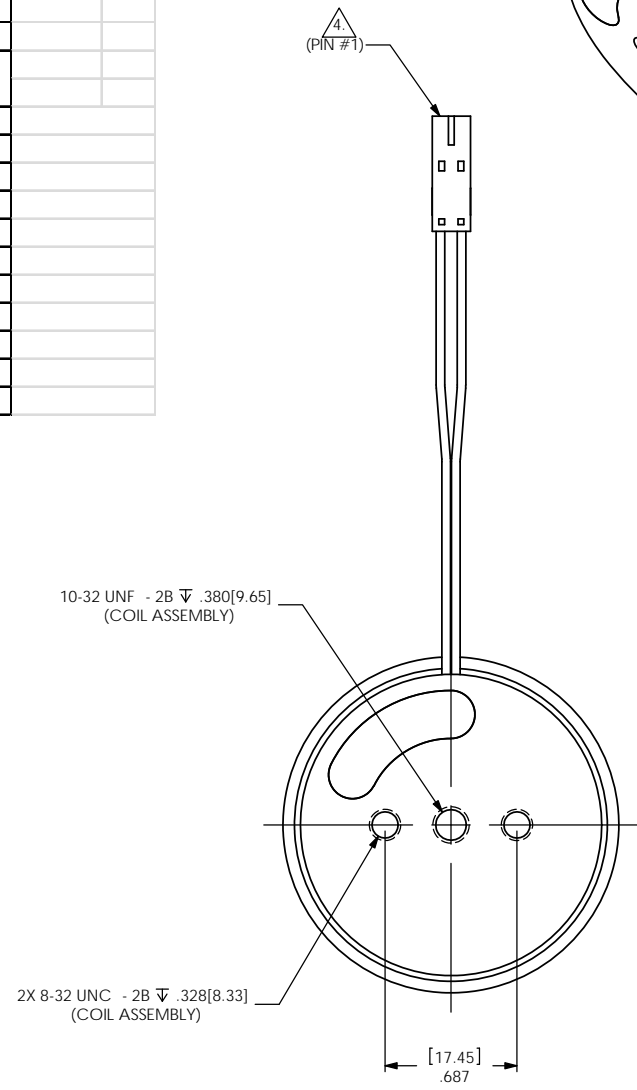
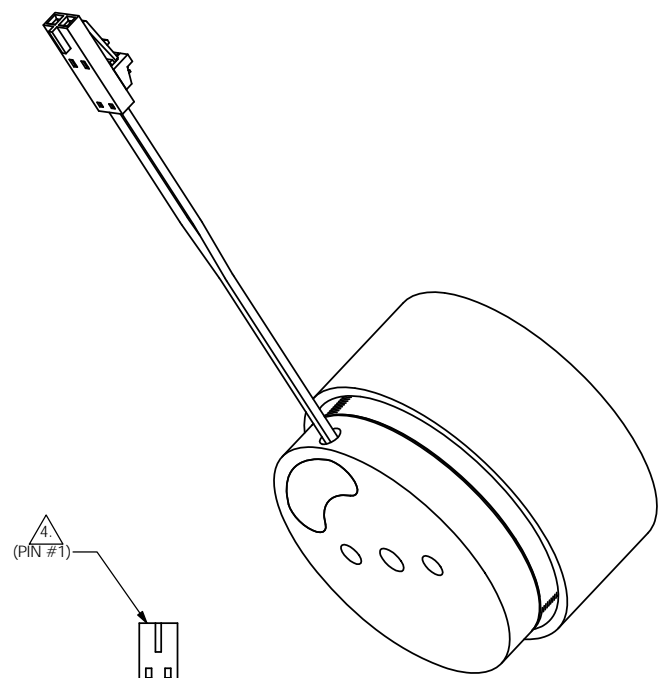
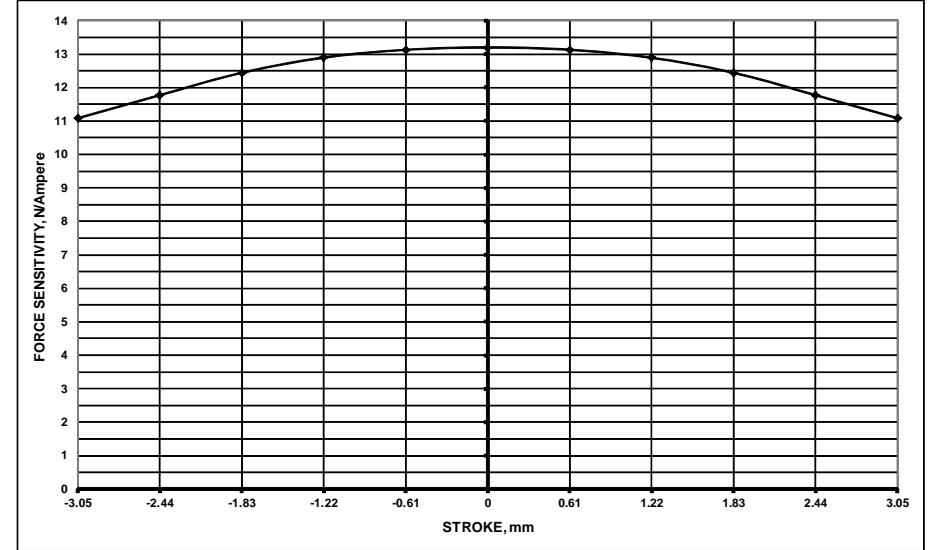


LTR	ECO NO.	DESCRIPTION	DRN	APPD	DATE
B	050228	MATCH REVISION TO AVANTE	JJC	SH	3/21/05
C	110173	UPDATE FORCE SENSITIVITY GRAPH	SLM	SH	08/22/11
D	120068	UPDATE PARAMETERS	SLM	MG	03/29/12

Winding Constants *	Units	Tol	Symbol	Wdg	Z
DC Resistance	Ohms	± 12.5%	R	8.58	
Voltage @ F _p	Volts	Nominal	V _p	26.0	
Current @ F _p	Amps	Nominal	I _p	3.03	
Force Sensitivity	LB/Amp	± 10%	K _F	2.97	
	N/Amp	± 10%		13.2	
Back EMF Constant	V/(ft/sec)	± 10%	K _B	4.0	
	V/(m/sec)	± 10%		13.2	
Inductance ****	milli-henry	± 30%	L	2.8	

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	LB	F _p	9.0
	N		40.0
Continuous Stall Force ***	LB	F _{CS}	2.65
	N		11.8
Actuator Constant	LB/√Watt	K _A	1.01
	N/√Watt		4.51
Electrical Time Constant	milli-sec	τ _E	0.33
Mechanical Time Constant	milli-sec	τ _M	2.3
Theoretical Acceleration	ft/sec ²	α _T	3003
	m/sec ²		915.3
Max Theoretical Frequency @ Full Stroke & Sinusoidal/Triangular Motion	Hz	f _{max}	87.21/96.9
Power I ² R @ F _p	Watts	P _p	78.8
Stroke: BI-DIRECTIONAL	± in		0.12
	± mm		3.05
Clearance on Each side of Coil	in		0.05
	mm		1.22
Thermal Resistance of Coil in still air	°C/Watt	θ _{TH}	12.6
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	OZ	WT _C	1.54
	G		43.7
Weight of Field Assembly	OZ	WT _T	6.2
	G		175.8

* AT MID-STROKE POSITION AND @ 25°C AMBIENT TEMPERATURE
 ** 10 SECONDS @ 25°C AMBIENT & 155°C COIL TEMPERATURE
 *** @ 25°C AMBIENT & 155°C COIL TEMPERATURE
 **** MEASURED AT 1000 Hz.



4. A POSITIVE (+) VOLTAGE APPLIED TO THE RED LEAD WIRE (PIN #1) WILL PRODUCE A FORCE ON THE COIL ASSEMBLY IN THE POSITIVE (+) DIRECTION.

- ALL ABBREVIATIONS IAW MIL-STD-12.
- INTERPRET DRAWING IAW MIL-STD-100.
- INTERPRET DIMENSIONING AND TOLERANCING IAW ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

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U.S. PATENT NO.

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
 -ALL DIMENSIONS ARE IN INCHES
 -BREAK SHARP EDGES .015 MAX
 -SURFACE ROUGHNESS 63
 -DIMENSIONS APPLY AFTER FINISH
 -MAX FILLET R.010

TOLERANCES:

DECIMALS	ANGULAR
X ± .03	± 0° 30'
XX ± .01	
XXX ± .005	

DO NOT SCALE DRAWING

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN R. GUERRERO	DATE 08/24/04	TITLE LINEAR ACTUATOR
CHECK THOMPSON	DATE 10/18/04	
APPD S. HSIA	DATE 10/18/04	
FILE NO. L:\TOP\LEVEL\LA\LA18-12-006Z	SCALE 1/1	REV D

SIZE **D** FSCM NO. 55789 DWG NO. LA18-12-006Z SHEET 1 OF 1