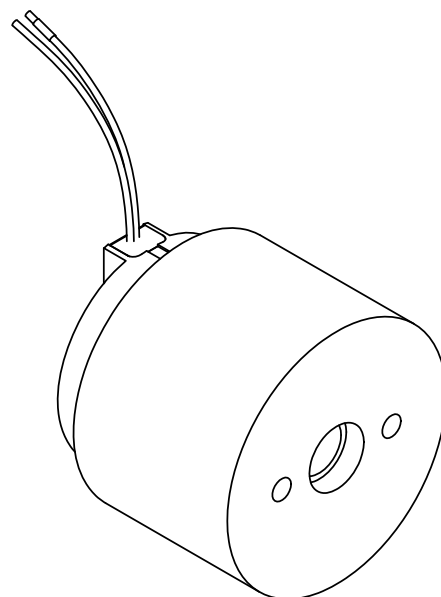


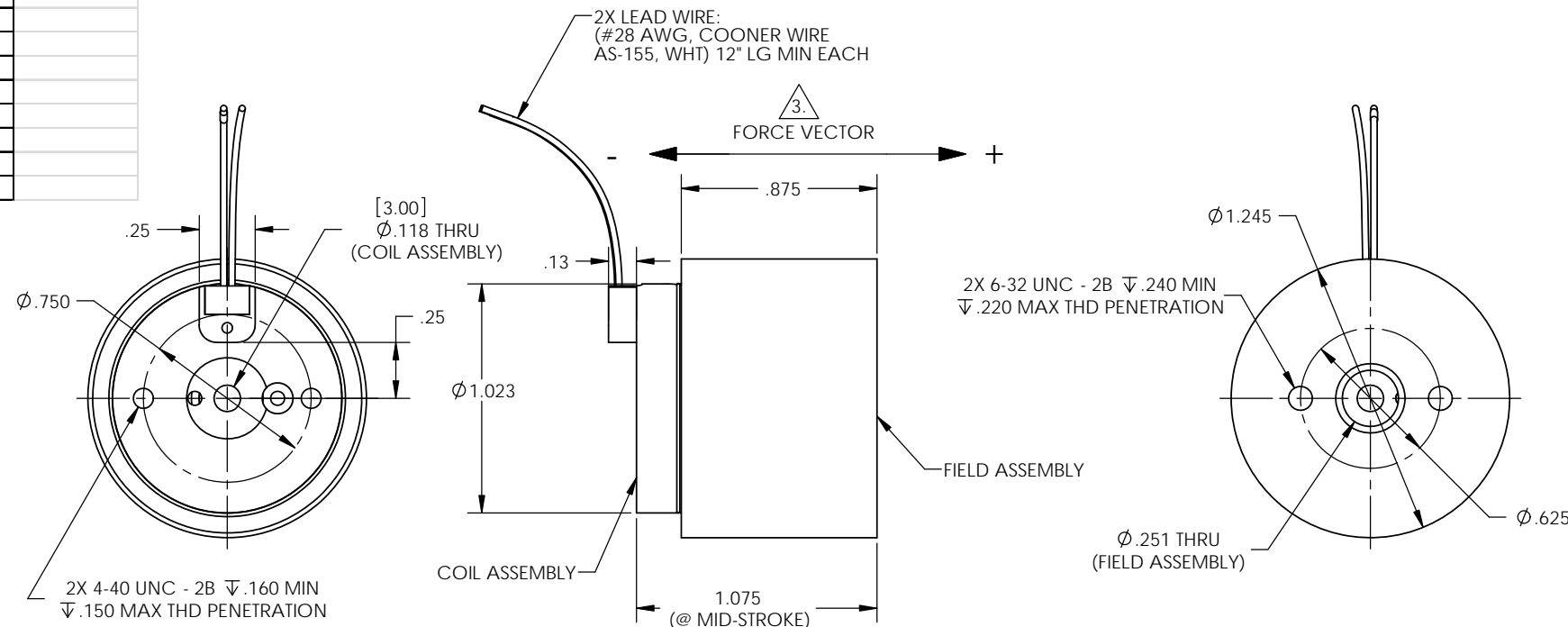
LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	090305	INITIAL RELEASE	RG	MG	01/14/10
X2	100196	UPDATE TO CURRENT CONFIG.	RG	MG	07/19/10

Winding Constants *	Units	Tol	Symbol	Wdg	Z
DC Resistance	Ohms	+ 12.5%	R		17.1
Voltage @ F _p	Volts	Nominal	V _p		27.2
Current @ F _p	Amps	Nominal	I _p		1.59
Force Sensitivity	LB/Amp	± 10%	K _F		2.2
	N/Amp	± 10%			9.79
Back EMF Constant	V/(ft/sec)	± 10%	K _B		2.98
	V/(m/sec)	± 10%			9.79
Inductance ****	milli-Henry	± 15%	L		2.8

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	LB	F _P	3.5
	N		15.57
Continuous Stall Force ***	LB	F _{CS}	1.14
	N		5.07
Actuator Constant	LB/√Watt	K _A	0.53
	N/√Watt		2.36
Electrical Time Constant	micro-sec	τ _E	164
Mechanical Time Constant	milli-sec	τ _M	2.43
Theoretical Acceleration	ft/sec ²	α _T	3756.2
	m/sec ²		1144.9
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f _{max}	95.6/106.2
Power P _R @ F _p	Watts	P _P	43.3
Stroke:	± in		0.125
	± mm		3.18
Clearance on Each side of Coil	in		0.015
	mm		0.38
Thermal Resistance of Coil in still air	°C/Watt	θ _{TH}	18.7
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	LB	WT _C	0.03
	g		13.6
Weight of Field Assembly	LB	WT _F	0.21
	g		95.3



* 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.



THESE COMMODITIES, TECHNOLOGY OR SOFTWARE IF EXPORTED FROM THE UNITED STATES SHALL BE IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED

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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
 -DIAMETERS SHALL NOT EXCEED A RUNOUT OF .005 FIM

TOLERANCES:
 DECIMALS ANGULAR
 .X ±.03 ±0°30'
 .XX ±.01
 .XXX ±.005
 DO NOT SCALE DRAWING



BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN GUERRERO	DATE 12/01/09	TITLE LINEAR ACTUATOR	
CHECK McGHEE	DATE 01/14/10	SIZE C	FSCM NO. 55789
APPD GODKIN	DATE 01/14/10	DWG NO. LA13-11-000A	REV X2
FILE NO. L\TOP\L\LA\	SCALE: NONE	SHEET: 1 OF 1	

4. MECHINAL OVERTRAVEL IN THE POSITIVE (+) DIRECTION IS .025 MINIMUM.
3. A POSITIVE (+) VOLTAGE APPLIED TO THE MARKED LEAD WILL PRODUCE A FORCE ON THE COIL ASSEMBLY IN THE POSITIVE (+) DIRECTION.
2. INTERPRET DRAWING IAW Y14.100.
1. INTERPRET DIMENSIONING AND TOLERANCING IAW ASME Y14.5M-1994.
- NOTES: UNLESS OTHERWISE SPECIFIED