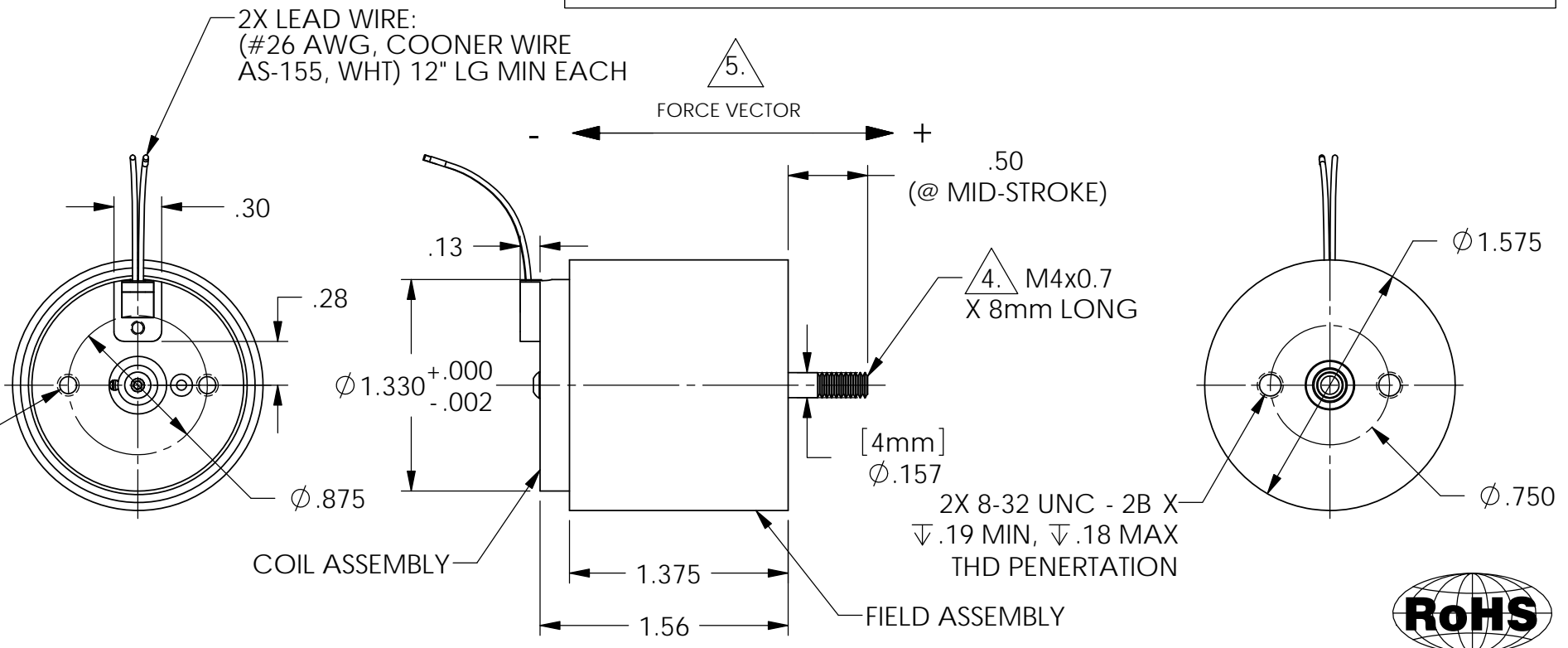
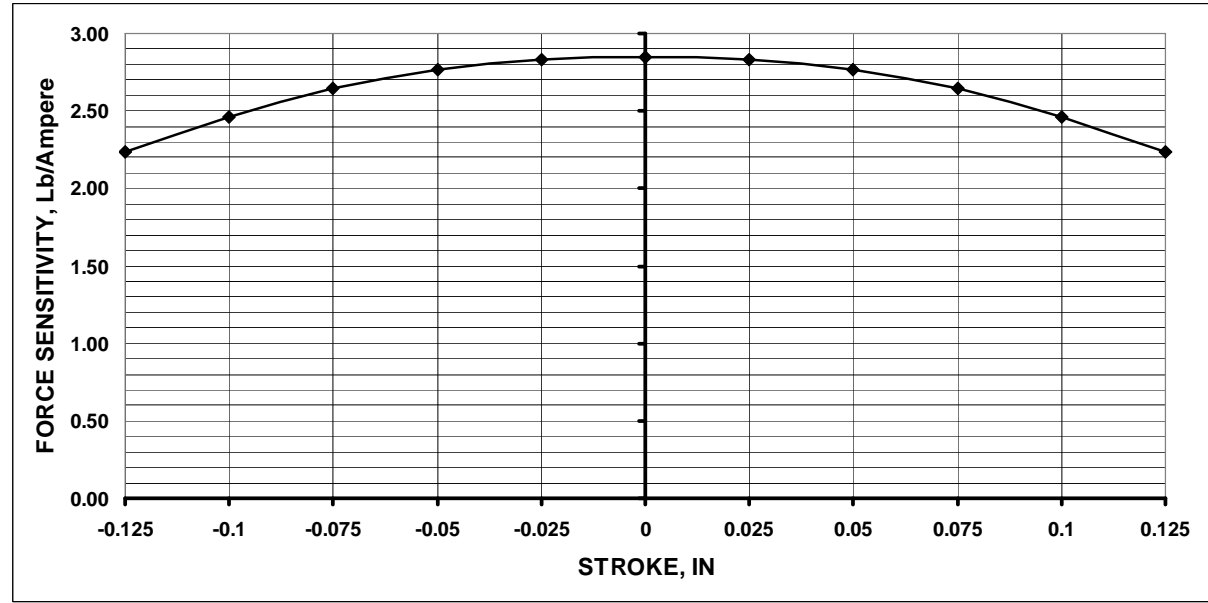
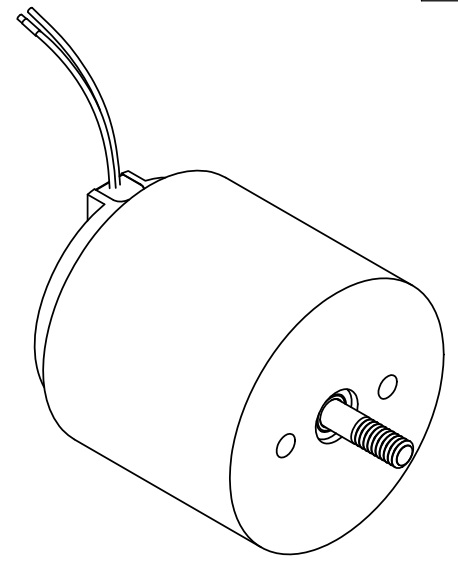


LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	130086	INITIAL RELEASE	RG	MG	03/26/13

Winding Constants *	Units	Tol	Symbol	Wdg	A
DC Resistance	Ohms	± 12.5%	R	4.7	
Voltage @ F _p	Volts	Nominal	V _p	33.0	
Current @ F _p	Amps	Nominal	I _p	7.02	
Force Sensitivity	LB/Amp	± 10%	K _F	2.85	
	N/Amp	± 10%		12.68	
Back EMF Constant	V/(ft/sec)	± 10%	K _B	3.86	
	V/(m/sec)	± 10%		12.68	
Inductance ****	milli-Henry	± 30%	L	1.25	

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	LB	F _P	20.0
	N		89.0
Continuous Stall Force ***	LB	F _{CS}	3.75
	N		16.7
Actuator Constant	LB/√Watt	K _A	1.31
	N/√Watt		5.83
Electrical Time Constant	milli-sec	τ _E	270
Mechanical Time Constant	milli-sec	τ _M	1.45
Theoretical Acceleration	ft/sec ²	α _T	5898.9
	m/sec ²		1798
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f _{max}	119.8/133.1
Power I ² R @ F _p	Watts	P _P	232
Stroke:	± in		0.125
	± mm		3.18
Clearance on Each side of Coil	in		0.018
	mm		0.46
Thermal Resistance of Coil in still air	°C/Watt	θ _{TH}	10.6
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	OZ	WT _C	1.75
	g		49.5
Total Weight	OZ	WT _T	9.6
	g		272.2

* 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.



(DASH)	SHAFT END CONFIGURATION
-4S	4mm Diameter
-4E	4mm Diameter, External Thread M4x0.7 X 8mm Long

5. A POSITIVE (+) VOLTAGE APPLIED TO THE MARKED LEAD WILL PRODUCE A FORCE ON THE COIL ASSEMBLY IN THE POSITIVE (+) DIRECTION.

4. -4E SHAFT CONFIGURATION SHOWN.

3. ALL ABBREVIATIONS IAW ASME Y14.38.

2. INTERPRET DRAWING IAW ASME Y14.100.

1. INTERPRET DIM. AND TOL. IAW ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

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

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN GUERRERO	DATE 03/22/13	TITLE LINEAR ACTUATOR		
CHECK MCGHEE	03/26/13	SIZE B	FSCM NO. 55789	DWG NO. LA16-16-001A-DASH
APPD GODKIN	03/26/13	REV X1	SHEET: 1 OF 1	
FILE NO. L\TOP\L\LA\	SCALE: NONE			