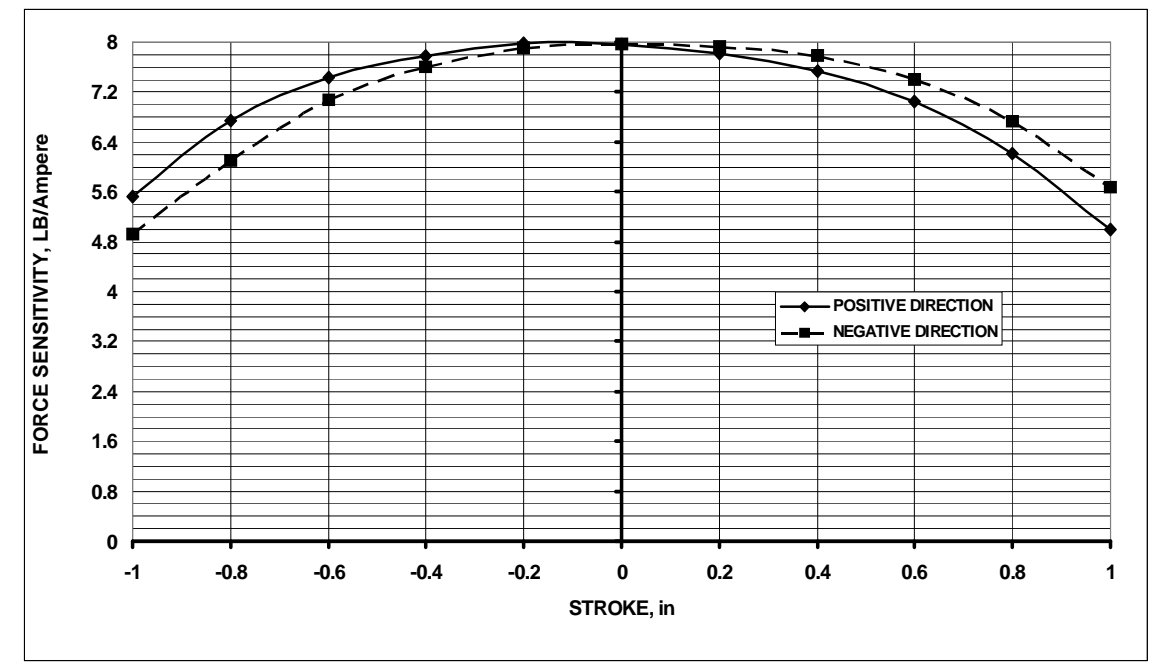
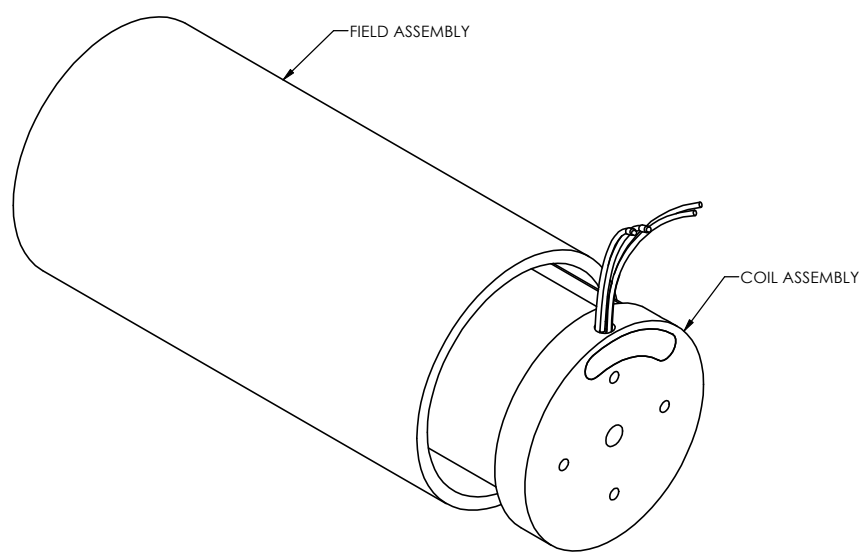


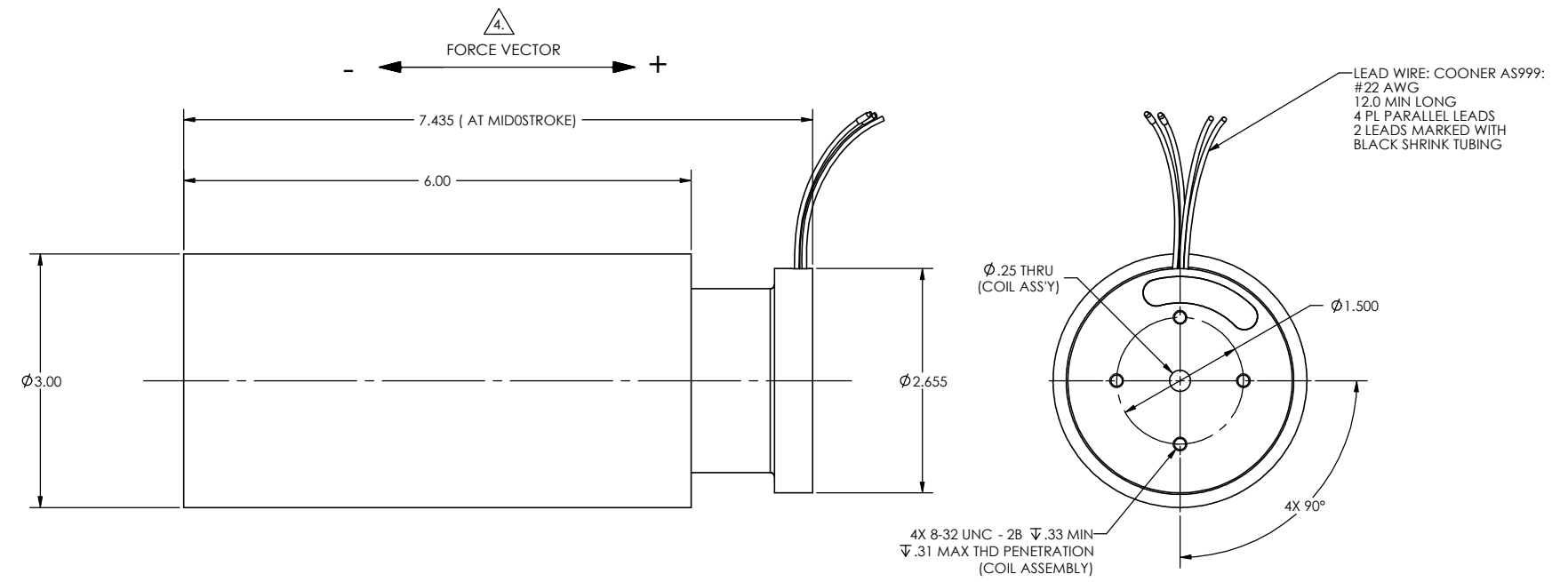
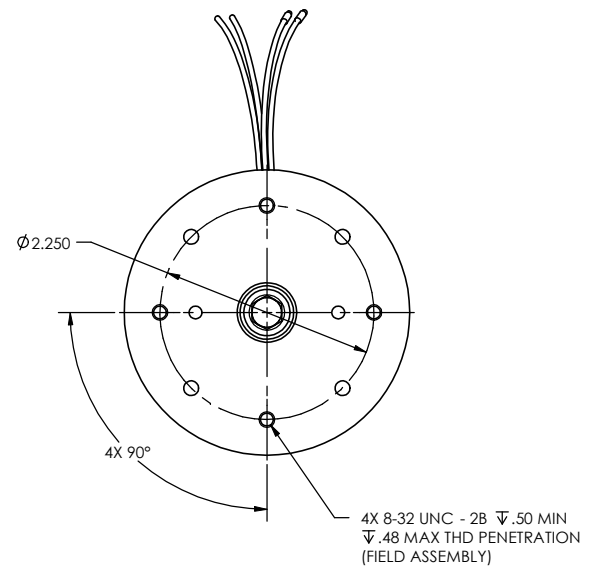
LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	100018	INITIAL RELEASE	RG	MG	02/04/10

Winding Constants *	Units	Tol	Symbol	Wdg	A
DC Resistance	Ohms	± 12.5%	R	4.5	
Voltage @ F _P	Volts	Nominal	V _P	56.7	
Current @ F _P	Amps	Nominal	I _P	12.6	
Force Sensitivity	LB/Amp	± 10%	K _F	7.95	
	N/Amp	± 10%		35.36	
Back EMF Constant	V/(R/sec)	± 10%	K _B	10.78	
	V/(m/sec)	± 10%		35.36	
Inductance ****	milli-henry	± 30%	L	3.4	

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	LB	F _P	100
	N		444.8
Continuous Stall Force ***	LB	F _{CS}	21.7
	N		96.24
Actuator Constant	LB/√Watt	K _A	3.75
	N/√Watt		16.67
Electrical Time Constant	milli-sec	τ _E	0.76
Mechanical Time Constant	milli-sec	τ _M	2.45
Theoretical Acceleration	ft/sec ²	α _T	2146
	m/sec ²		654.1
Max Theoretical Frequency @ Full Stroke & Sinusoidal/Triangular Motion	Hz	f _{max}	25.5/28.4
Power P _R @ F _P	Watts	P _P	714
Stroke:	± in		1
	± mm		25.4
Clearance on Each side of Coil	in		0.02
	mm		0.508
Thermal Resistance of Coil in still air	°C/Watt	θ _{TH}	2.6
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	LB	WT _C	1.5
	Kg		0.68
Weight of Field Assembly	LB	WT _T	7.7
	Kg		3.49



* 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.



LEAD WIRE: COONER AS999:
 #22 AWG
 12.0 MIN LONG
 4 PL PARALLEL LEADS
 2 LEADS MARKED WITH
 BLACK SHRINK TUBING

▲ A POSITIVE (+) VOLTAGE APPLIED TO THE MARKED LEADS WILL PRODUCE A FORCE ON THE COIL IN THE POSITIVE (+) DIRECTION.

3. ALL ABBREVIATIONS IAW ASME Y14.38.
 2. INTERPRET DRAWING IAW ASME Y14.100.
 1. INTERPRET DIMENSIONING AND TOLERANCING 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 ±0.03
 .XX ±0.01
 .XXX ±0.005
 DO NOT SCALE DRAWING

ANGULAR: ±0°30'

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN GUERRERO	DATE 01/12/10	TITLE LINEAR ACTUATOR
MECH CHECK McGHEE	DATE 02/02/10	
APPD GODKIN	DATE 02/04/10	
FILE NO. L\TOP LEVEL\LA\	SCALE 1/1	SHEET 1 OF 1

SIZE: D FSCM NO.: 55789 DWG NO.: LA30-75-001A REV: X1

LA30-75-001A X1

