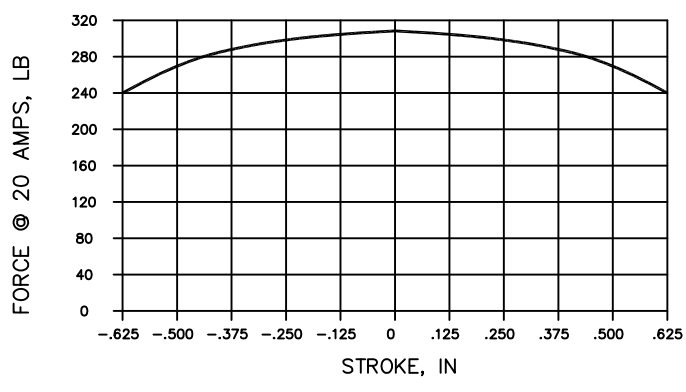


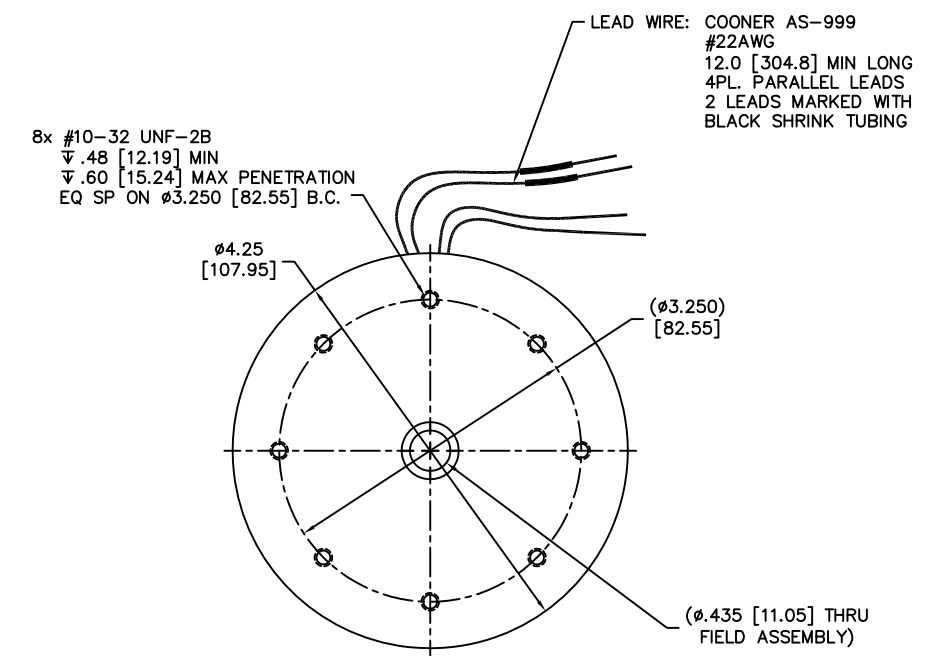
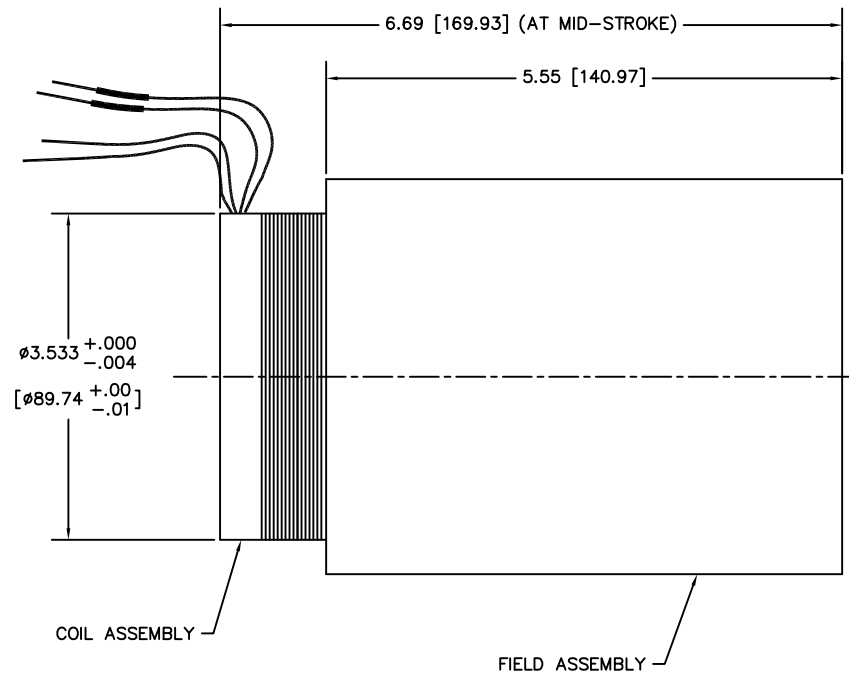
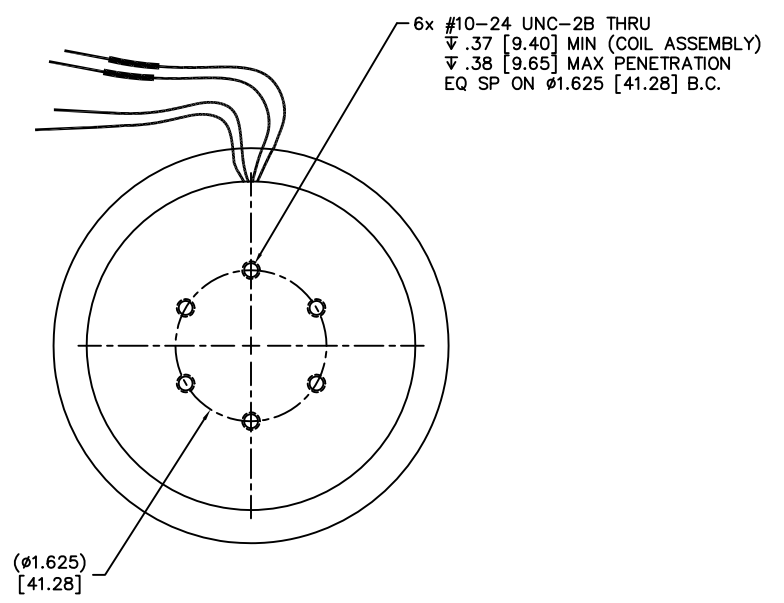
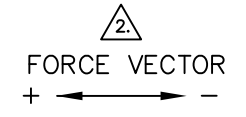
LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X7	110009	COIL ASSEMBLY O.D. 3.535 NOW 3.533	SLM	MG	01/18/11
X8	110104	ADDED RoHS LOGO	RG	MG	05/31/11

WINDING CONSTANTS	UNITS	TOL	SYMBOL	WDG A
DC RESISTANCE	OHMS	±12.5%	R	6.05
VOLTAGE @ F <sub>p</sub>	VOLTS	NOMINAL	V <sub>p</sub>	121.0
CURRENT @ F <sub>p</sub>	AMPERES	NOMINAL	I <sub>p</sub>	20.0
FORCE SENSITIVITY	LB/AMP	±10%	K <sub>F</sub>	15.5
	N/AMP	±10%		68.9
BACK EMF CONSTANT	V/FT/SEC	±10%	K <sub>B</sub>	21.0
	V/M/SEC	±10%		68.9
INDUCTANCE *****	MILLI-HENRY	±15%	L	4.57

ACTUATOR PARAMETERS*	UNITS	SYMBOL	VALUE
PEAK FORCE **	LB	F <sub>p</sub>	310.0
	N		1378.9
CONTINUOUS STALL FORCE ***	LB	T <sub>cs</sub>	63.6
	N		282.9
ACTUATOR CONSTANT	LB/√WATT	K <sub>A</sub>	6.3
	N/√WATT		28.02
ELECTRICAL TIME CONSTANT	MILLI-SEC	τ <sub>E</sub>	0.76
MECHANICAL TIME CONSTANT	MILLI-SEC	τ <sub>M</sub>	1.24
THEORETICAL ACCELERATION	FT/SEC	α <sub>T</sub>	9047.8
	M/SEC <sup>2</sup>		2757.8
MAXIMUM THEORETICAL FREQUENCY @ FULL STROKE (1.25")	Hz	f <sub>max</sub>	66.34
POWER I <sup>2</sup> R @ F <sub>p</sub>	WATTS	P <sub>p</sub>	2420.0
STROKE	± INCHES		0.625
	± MM		15.87
CLEARANCE ON EACH SIDE OF COIL	IN		0.02
	MM		0.51
THERMAL RESISTANCE OF COIL	°C/WATT	θ <sub>TH</sub>	0.85
MAX. ALLOWABLE COIL TEMP.	°C	TEMP	155
WEIGHT OF COIL ASSEMBLY	LB	WT <sub>C</sub>	1.1
	KG		0.5
WEIGHT OF FIELD ASSEMBLY	LB	WT <sub>F</sub>	17.4
	KG		7.89



\* AT MID-STROKE & 25°C AMBIENT TEMPERATURE  
 \*\* 10 SECONDS AT 25°C AMBIENT & 155°C COIL TEMPERATURE  
 \*\*\* 25°C AMBIENT & 155°C COIL TEMPERATURE  
 \*\*\*\* MEASURED AT 1000 Hz



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

1. INTERPRET DIMENSIONS & TOLERANCES PER ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

U.S. PATENT NO.  
 5,345,206

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THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:  
 -ALL DIMENSIONS ARE IN UNITS  
 -BREAK SHARP EDGES 0.15 MAX.  
 -SURFACE ROUGHNESS √63  
 -DIMENSIONS APPLY AFTER FINISH  
 -MAX FILLET R FILLET

TOLERANCES:  
 DECIMALS ANGULAR  
 .X ± .X ANG.TOL  
 .XX ± .XX  
 .XXX ± .XXX  
 DO NOT SCALE DRAWING

DRAWN GUERRERO		DATE 06/01/05		TITLE LINEAR ACTUATOR	
MECH CHECK MCGHEE		DATE 06/02/05		SIZE D	
APPD M. GODKIN		DATE 06/02/05		FSCM NO. 55789	
FILE NO. L\TOP\LA\		DWG NO. LA43-67-000A		REV X8	
SCALE 1/1		SHEET 1 OF 1			



**BEI** KIMCO MAGNETICS DIVISION  
 VISTA, CA 92081