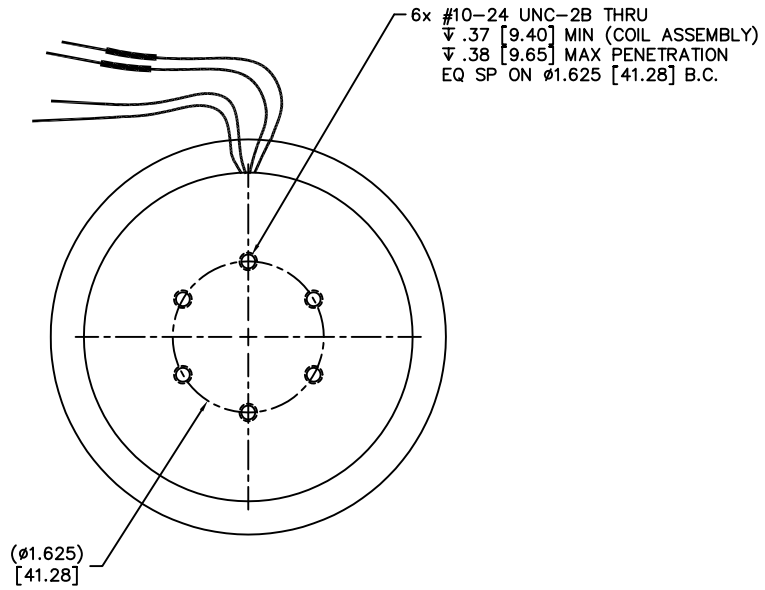
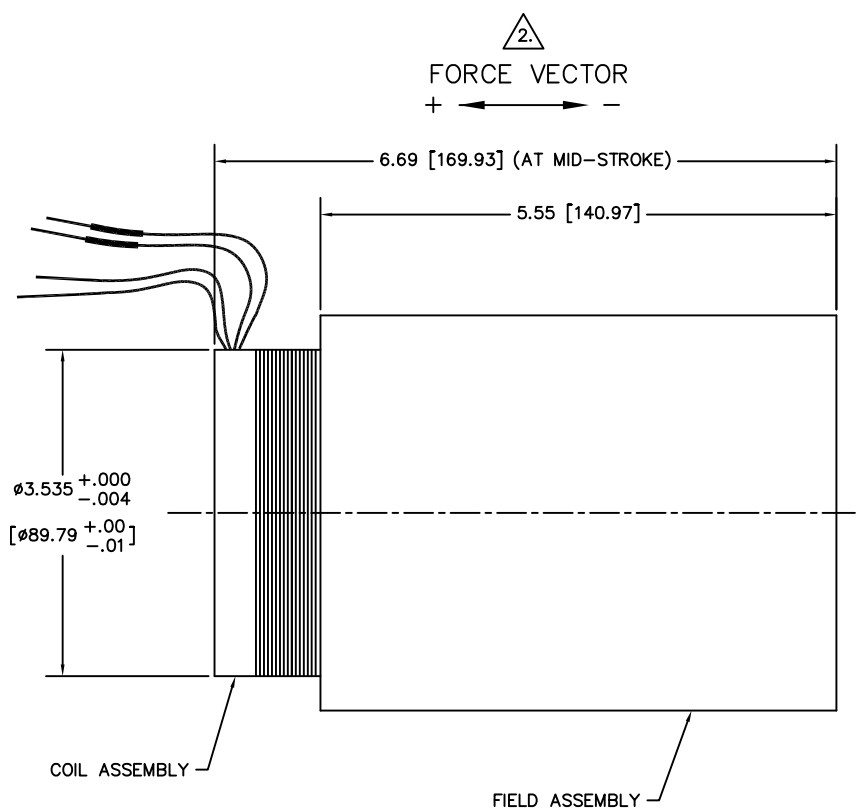
WINDING CONSTANTS	UNITS	TOL	SYMBOL	WDG A
DC RESISTANCE	OHMS	±12.5%	R	6.05
VOLTAGE @ F_P	VOLTS	NOMINAL	V_P	121.0
CURRENT @ F_P	AMPERES	NOMINAL	I_P	20.0
FORCE SENSITIVITY	LB/AMP	±10%	K_F	15.5
	N/AMP	±10%		68.9
BACK EMF CONSTANT	V/FT/SEC	±10%	K_B	21.0
	V/M/SEC	±10%		68.9
INDUCTANCE *****	MILLI-HENRY	±15%	L	4.57

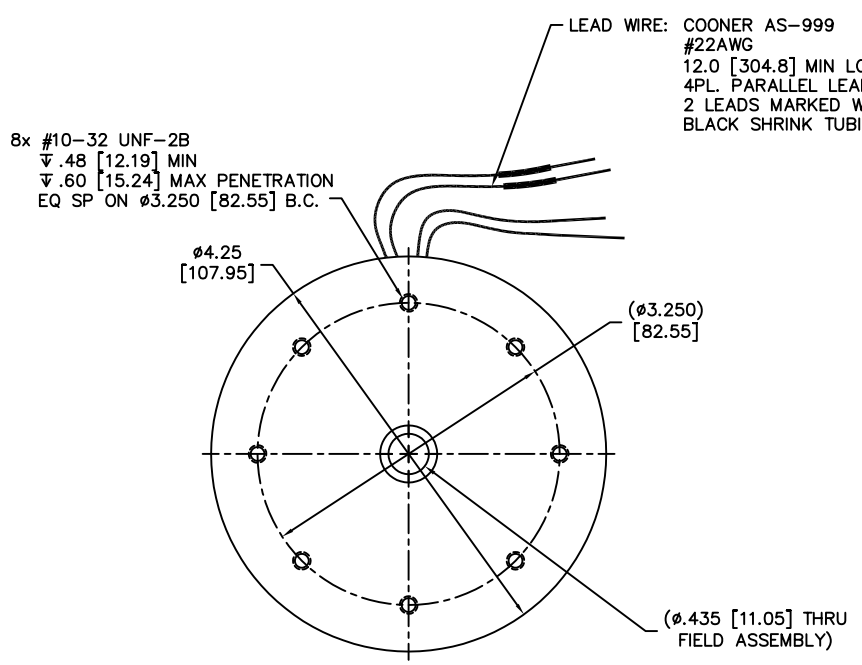
ACTUATOR PARAMETERS*	UNITS	SYMBOL	VALUE
PEAK FORCE **	LB	F_P	310.0
	N		1378.9
CONTINUOS STALL FORCE ***	LB	T_{CS}	63.6
	N		282.9
ACTUATOR CONSTANT	LB/ $\sqrt{WATT}$	K_A	6.3
	N/ $\sqrt{WATT}$		28.02
ELECTRICAL TIME CONSTANT	MILLI-SEC	τ_E	0.76
MECHANICAL TIME CONSTANT	MILLI-SEC	τ_M	1.24
THEORETICAL ACCELERATION	FT/SEC	α_T	9047.8
	M/SEC^2		2757.8
MAXIMUM THEORETICAL FREQUENCY @ FULL STROKE (1.25")	Hz	f_{max}	66.34
POWER I^2R @ F_P	WATTS	P_P	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_{TH}	0.85
MAX. ALLOWABLE COIL TEMP.	°C	TEMP	155
WEIGHT OF COIL ASSEMBLY	LB	WT_C	1.1
	KG		0.5
WEIGHT OF FIELD ASSEMBLY	LB	WT_F	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

LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X5	070465	ADDED METRIC VALUES	SLM	MG	08/08/07
X6	070618	UPDATE CONSTANTS & PARAMETERS	RG	MG	10/09/07







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 .015 MAX.
-SURFACE ROUGHNESS √63
-DIMENSIONS APPLY AFTER FINISH
-MAX FILLET R FILLET

TOLERANCES
DECIMALS ANGULAR
.X ± .X ANGTOL
.XX ± .XX
.XXX ± .XXX
DO NOT SCALE DRAWING

BEI *KIMCO MAGNETICS DIVISION*
VISTA, CA 92081

DRAWN: GUERRERO	DATE: 06/01/05	TITLE: LINEAR ACTUATOR
MECH CHECK: McGHEE	06/02/05	
APPD: M. GODKIN	06/02/05	SIZE: D · FSCM NO.: 55789 · DWG NO.: LA43-67-000A · REV: X6
FILE NO.: L\TOP\LA\		SCALE: 1/1 · SHEET 1 OF 1

LA43-67-000A X6