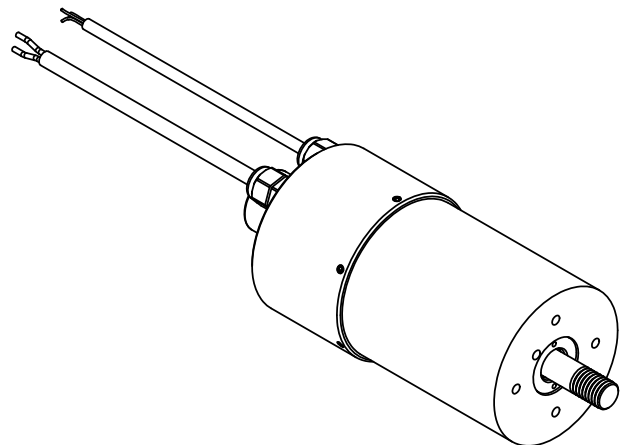
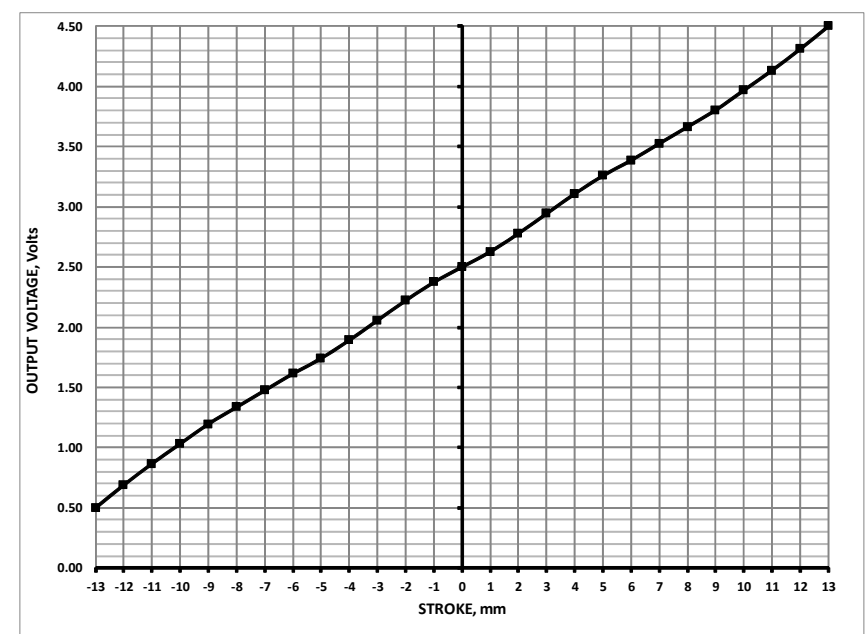
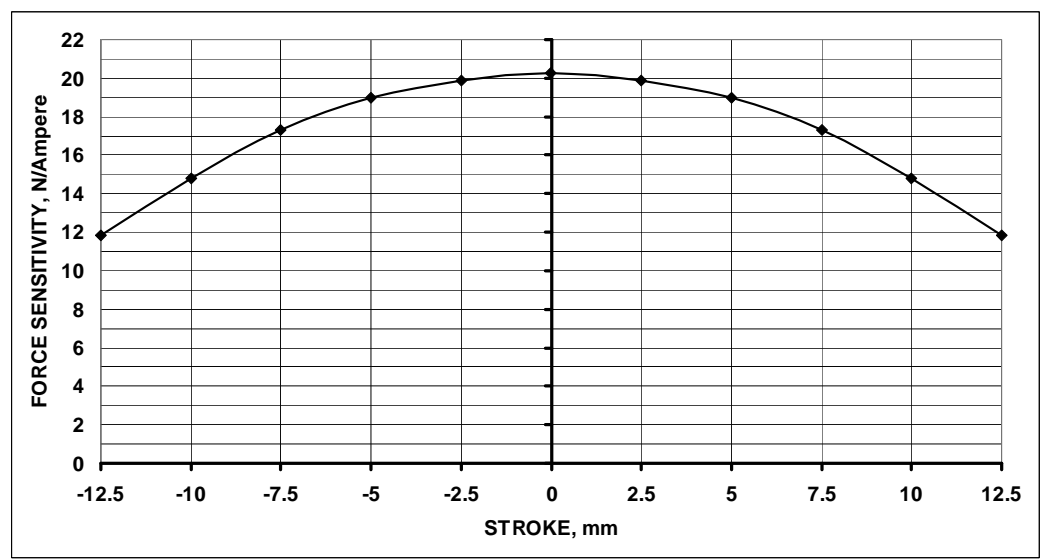


LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	130068	INITIAL RELEASE	RG	MG	03/12/13
X2	130296	UPDATED TO AS BUILT CONDITION	RG	MG	09/06/13

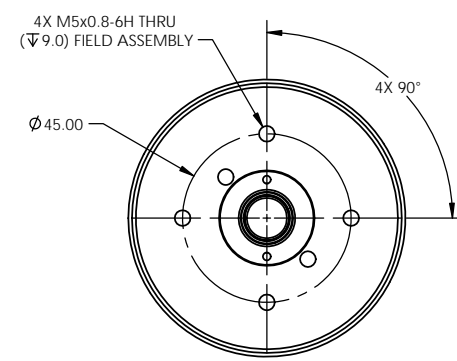
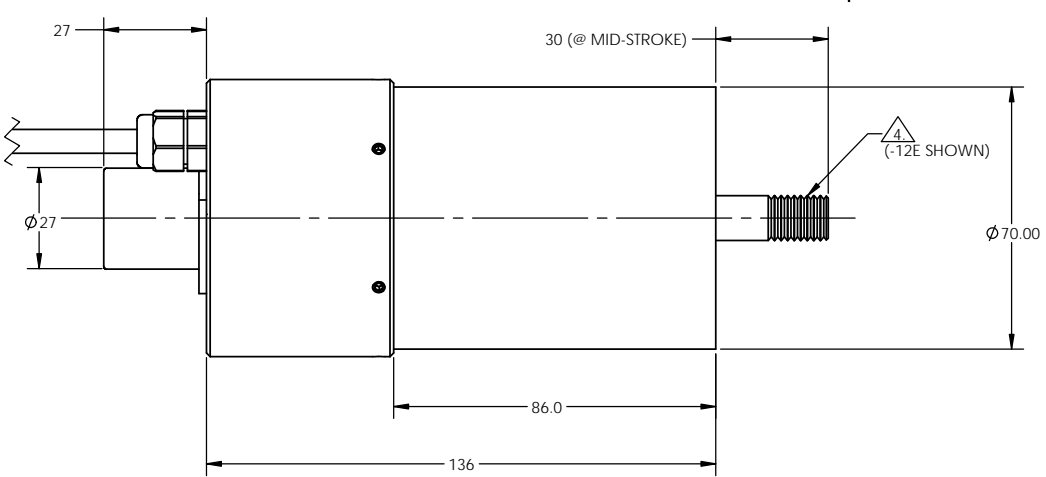
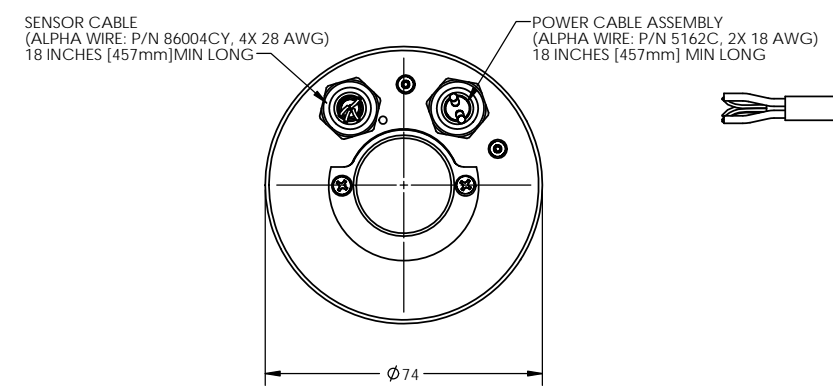
Winding Constants *	Units	Tol	Symbol	Wdg	A
DC Resistance	Ohms	± 12.5%	R	2.4	
Voltage @ F _P	Volts	Nominal	V _P	31.6	
Current @ F _P	Amps	Nominal	I _P	13.16	
Force Sensitivity	N/Amp	± 10%	K _F	20.28	
	LB/Amp	± 10%		4.56	
Back EMF Constant	V/(m/sec)	± 10%	K _B	20.28	
	V/(ft/sec)	± 10%		6.18	
Inductance ****	milli-henry	± 30%	L	3.15	

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	N	F _P	266.9
	LB		60
Continuous Stall Force ***	N	F _{CS}	60.1
	LB		13.5
Actuator Constant	N/√Watt	K _A	13.09
	LB/√Watt		2.94
Electrical Time Constant	milli-sec	τ _E	1.31
Mechanical Time Constant	milli-sec	τ _M	4.4
Theoretical Acceleration	m/sec ²	α _T	353.5
	ft/sec ²		1159.8
Max Theoretical Frequency @ Full Stroke & Sinusoidal/Triangular Motion	Hz	f _{max}	26.8/29.7
Power I ² R @ F _P	Watts	P _P	416
Stroke:	± mm		12.5
	± in		0.492
Clearance on Each side of Coil	mm		1.51
	in		0.02
Thermal Resistance of Coil	°C/Watt	θ _{TH}	4.11
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	Kg	WT _C	0.755
	LB		1.66
Total Weight	Kg	WT _T	2.4
	LB		5.29



POSITION SENSOR		
LEAD WIRE	IDENTIFICATION	DESCRIPTION
RED	V _{CC}	INPUT VOLTAGE (5 VOLTS)
GREEN	GND	GROUND
BLACK	V _O	OUTPUT VOLTAGE
WHITE	V _{PP}	VOLTAGE FOR PROGRAMMING ONLY, NOT TO BE USED BY CUSTOMER

* 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
-12S	12mm Diameter
-12I	12mm Diameter, Internal Thread M8x1.25 X 16 mm Deep
-12E	12mm Diameter, External Thread M12x1.75 X 16mm Long

5 A POSITIVE (+) VOLTAGE APPLIED TO RED LEAD ON THE POWER CABLE ASSEMBLY WILL PRODUCE A FORCE ON THE COIL ASSEMBLY IN THE POSITIVE (+) DIRECTION.
 4 -12E SHAFT CONFIGURATION SHOWN.
 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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METRIC DRAWING



BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

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THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
 -ALL DIMENSIONS ARE IN MILLIMETERS
 -BREAK SHARP EDGES 0.4 MAX
 -SURFACE ROUGHNESS 1.6
 -DIMENSIONS APPLY AFTER FINISH
 -MAX FILLET R0.25
 -DIAMETERS SHALL NOT EXCEED A RUNOUT OF 0.13 FIM

TOLERANCES:
 DECIMALS ANGULAR
 X ±0.8 ±0°30'
 XX ±0.25
 XXX ±0.13
 DO NOT SCALE DRAWING

DRAWN GUERRERO	DATE 03/11/13	TITLE LINEAR ACTUATOR SYSTEM			
MECH CHECK	03/11/13	SIZE D	FSCM NO. 55789	DWG NO. LAS28-53-000A-P01-DASH	REV X2
APPD GODKIN	03/12/13	SCALE 1/1	SHEET 1 OF 1		
FILE NO. L\TOP LEVEL\AS\					

LAS28-53-000A-P01-DASH X2