LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X2	170059	UPDATE PARAMETERS & Fs v Stroke table	RG	MG	02/24/17

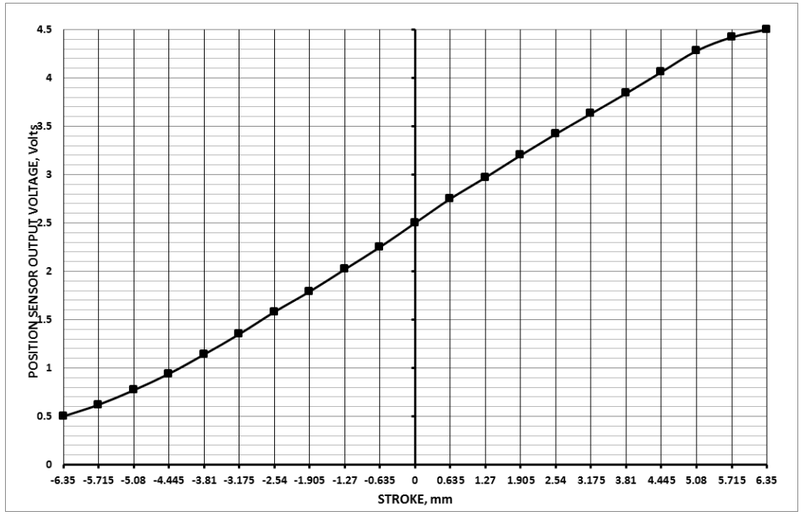
Winding Constants *	Units	Tol	Symbol	Wdg A
DC Resistance	Ohms	± 12.5%	R	1.4
Voltage @ F_{PS}	Volts	Nominal	V_{PS}	15.1
Current @ F_{PS}	Amps	Nominal	I_{PS}	10.8
Current @ Fcs	Amps	Nominal	Ics	2.63
Force Sensitivity @ F_{PS}	N/Amp	± 10%	K_{FPS}	9.02
	lb/Amp	± 10%		2.03
Force Sensitivity @ No-Load	N/Amp	± 10%	K_{FNL}	9.02
	lb/Amp	± 10%		2.03
Back EMF Constant	V/(m/sec)	± 10%	K_B	9.02
	V/(ft/sec)	± 10%		2.75
Inductance ****	milli-Henry	± 30%	L	0.022 (EST)

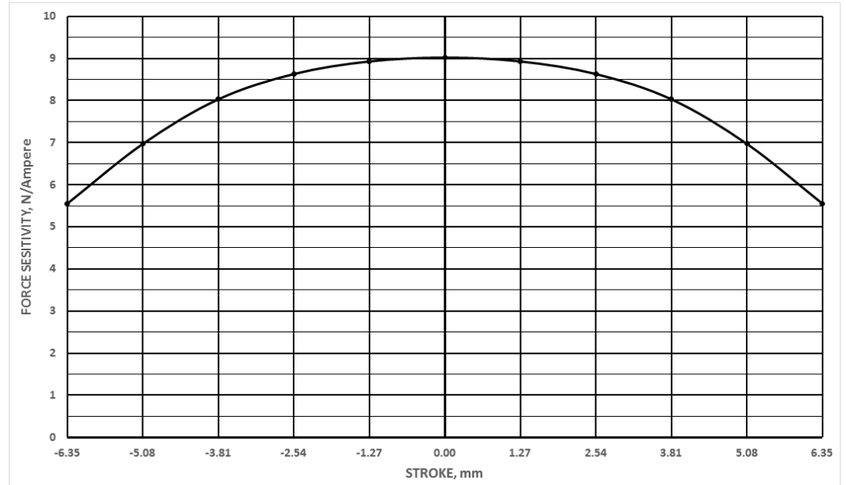
Linear Actuator Parameters *	Units	Symbol	Value
Peak Stall Force**	N	F_{PS}	97.36
	lb		21.9
Continuos Stall Force ***	N	F_{CS}	23.68 (EST)
	lb		5.32 (EST)
Actuator Constant	N/?Watt	K_A	7.63
	lb/?Watt		1.72 (EST)
Electrical Time Constant	milli-sec	τ_E	.016 (EST)
Mechanical Time Constant	milli-sec	τ_M	4.25
Theoretical Acceleration	m/s^2	a_T	394.2
	ft/s^2		1,293
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f_{max}	39.7/44.1
Power I^2R @ Fp_S	Watts	P_{PS}	163.3
Stroke	± mm	S_A	6.35
	± in		0.25
Moving Magnet Assembly Mass	kg	M_{CA}	0.247
	lb		0.545
Thermal Resistance of Coil in still air	°C/Watt	Θ_{TH}	9.0 (EST)
Maximum Allowable Coil Winding Temp	°C	T_W	155
Total Mass	kg	M_T	0.534
	lb		1.18

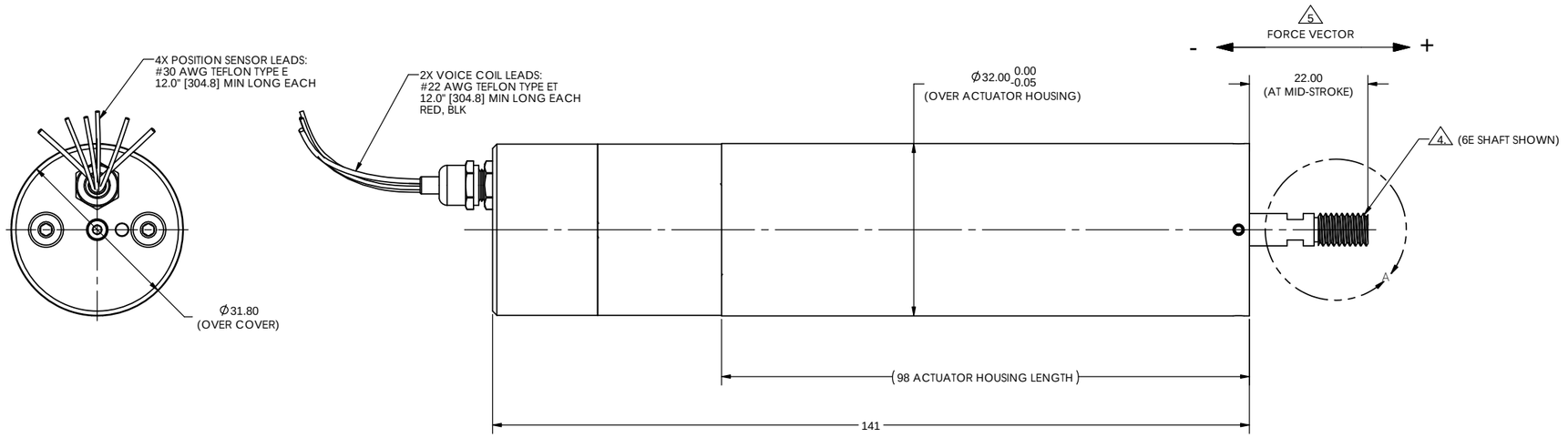
* AT MID-STROKE POSITION AND @ 25˚C AMBIENT TEMPERATURE.
** 10 SECONDS @ 25˚C AMBIENT & 155˚C COIL TEMPERATURE.
*** @25˚C AMBIENT & 155˚C COIL TEMPERATURE.
**** MEASURED AT 1000 Hz.

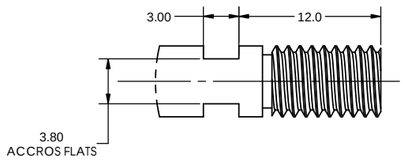
POSITION SENSOR		
LEAD WIRE	INDENTIFICATION	DESCRIPTION
YELLOW	V_{CC}	INPUT VOLATAGE (5 VOLTS)
GRAY	GND	GROUND
BROWN	V_O	OUTPUT VOLTAGE
WHITE	V_{PP}	VOLTAGE FOR PROGRAMMING ONLY, NOT TO BE USED BY CUSTOMER

(DASH)	SHAFT END CONFIGURATION
6I	6mm Diameter,Internal Thread M4x0.7 X 10 mm Deep
6E	6mm Diameter,External Thread M6x1.0 X 10mm Long









DETAIL A

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

4 -6E 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

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: .X ±.2, .XX ±.10
ANGULAR: ±0°30'

DO NOT SCALE DRAWING

METRIC DRAWING

RoHS

BEI KIMCO MAGNETICS DIVISION
VISTA, CA 92081

DRAWN	GUERRERO	DATE 02/03/17
MECH CHECK	McGHEE	02/07/17
APPD	GODKIN	02/07/17
FILE NO.	L\TOP LOVEL\LAS\	

TITLE: LINEAR ACTUATOR SYSTEM

SIZE	FSCM NO.	DWG NO.	REV
D	55789	LAS13-56-000A-P01-DASH	X2

SCALE: NONE SHEET 1 OF 1

LAS13-56-000A-P01-DASH X1