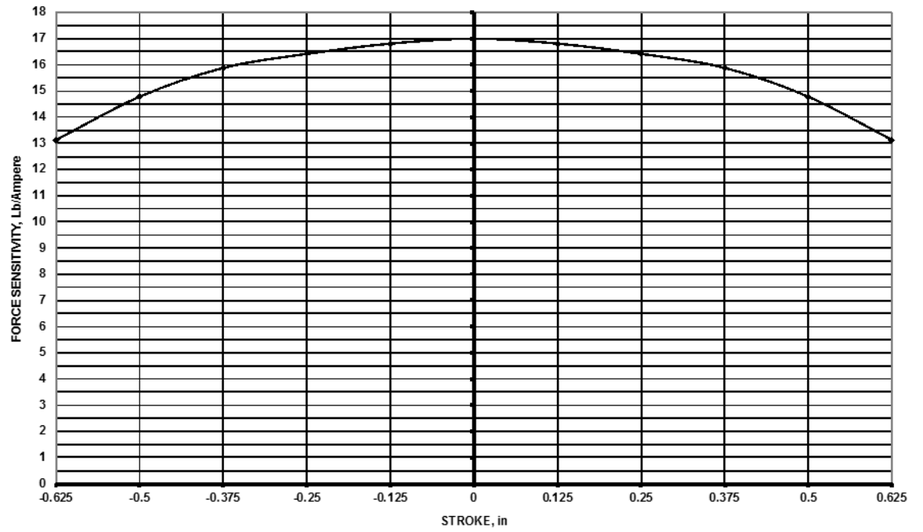
ZONE	REV.	REVISION DESCRIPTION	ECN NO.	DATE
	X2			

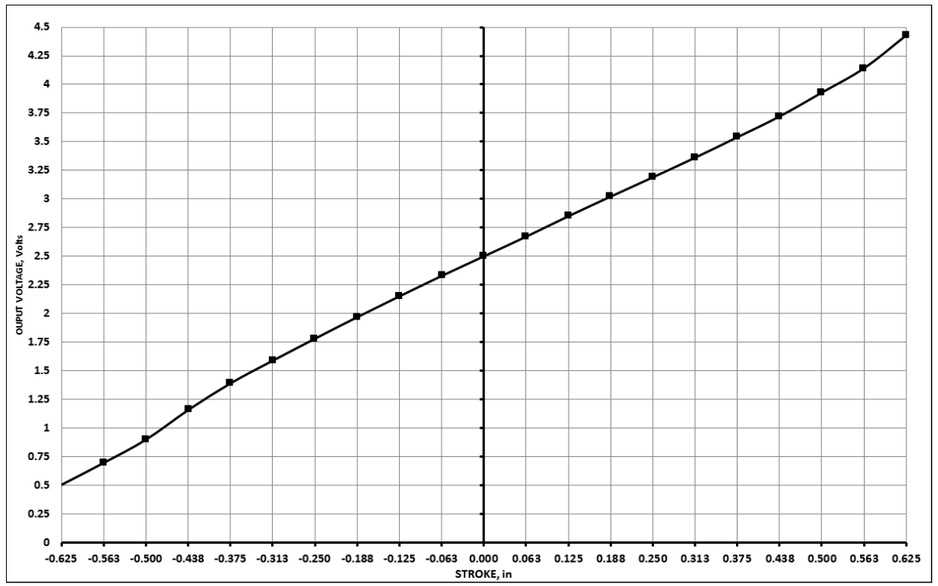
Winding Constants *	Units	Tol	Symbol	Wdg A
DC Resistance	Ohms	± 12.5%	R	3.9
Voltage @ F_{PS}	Volts	Nominal	V_{PS}	78
Current @ F_{PS}	Amps	Nominal	I_{PS}	20
Current @ Fcs	Amps	Nominal	Ics	3.78
Force Sensitivity @ F_{PS}	N/Amp	± 10%	K_{FPS}	75.62
	lb/Amp	± 10%		17
Force Sensitivity @ No-Load	N/Amp	± 10%	K_{F0}	75.62
	lb/Amp	± 10%		17
Back EMF Constant	V/(m/sec)	± 10%	K_B	75.62
	V/(ft/sec)	± 10%		23.05
Inductance ****	mH	± 15%	L	4.5

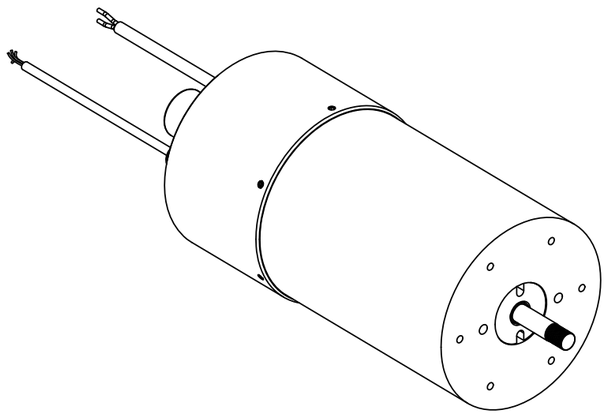
Linear Actuator Parameters *	Units	Symbol	Value
Peak Stall Force**	N	F_{PS}	1512.4
	lb		340
Continuous Stall Force ***	N	F_{CS}	285.5
	lb		64.2
Actuator Constant	N/√Watt	K_A	38.3
	lb/√Watt		8.61
Electrical Time Constant	ms	τ_E	1.15
Mechanical Time Constant	ms	τ_M	0.95
Theoretical Acceleration	m/s^2	a_T	1,088.1
	ft/s^2		3,569.7
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f_{max}	33.6/37.4
Power I^2R @ Fp_S	Watts	P_{PS}	1560
Stroke	± mm	S_L	15.87
	± in		0.625
Mass, Moving Coil Assembly	kg	M_{CA}	1.39
	lb		3.07
Thermal Resistance	°C/Watt	Θ_{TH}	1.56
Maximum Allowable Winding Temp	°C	T_W	155
Mass, Total	kg	M_{FA}	10.51
	lb		23.17

* 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	IDENTIFICATION	DESCRIPTION
RED	V_{CC}	INPUT VOLATAGE (5 VOLTS)
GREEN	GND	GROUND
BLACK	V_O	OUTPUT VOLTAGE
WHITE	V_{PP}	VOLTAGE FOR PROGRAMMING ONLY, NOT TO BE USED BY CUSTOMER







SOLIDWORKS

FOR REFERENCE ONLY, CHECK LATEST REVISION BEFORE USE.

DRAWN
DATE

ENGINEER
DATE

APPROVED
M. GODKIN
DATE 05/31/19

APPROVED
DATE

INTERPRET DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES
DECIMALS: X.X ± 0.03; X.XX ± 0.01; X.XXX ± 0.005
ANGLES: X.X° ± 0°30'

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

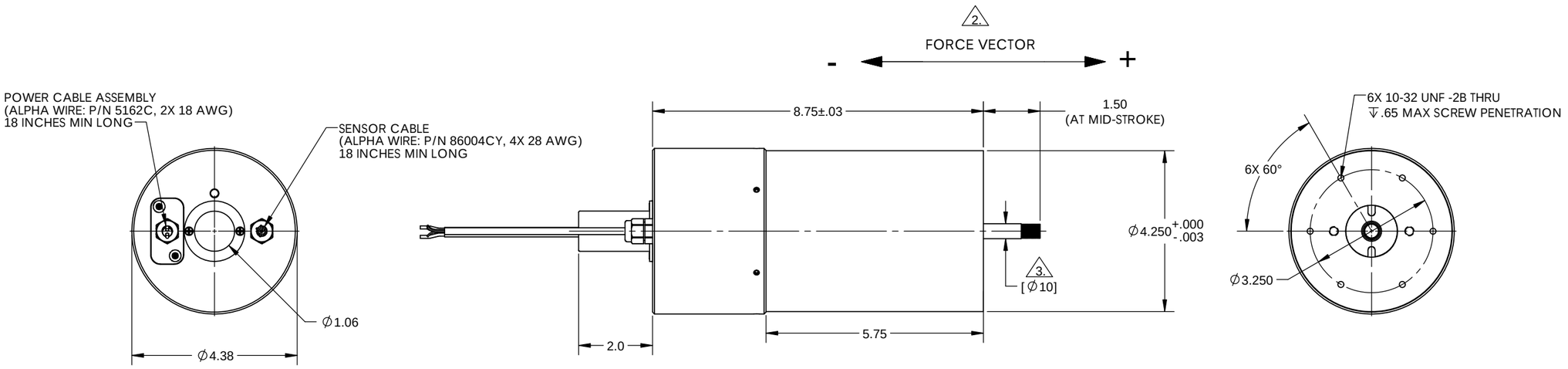
RoHS

Sensata Technologies
529 PLEASANT STREET
P.O. BOX 2964
ATTLEBORO, MA 02703

TITLE
LINEAR ACTUATOR SYSTEM

SIZE	DWG NO.	REV.
C	LAS43-88-000A-P01-DASH	X2

SCALE 1:2 | SHEET 1 OF 2



(DASH)	SHAFT END CONFIGURATION
-10I	10mm Diameter,Internal Thread 1/4-28 UNF X 1/2" Deep
-10E	10mm Diameter,External Thread 3/8-24 UNF X 1/2" Long

NOTES: UNLESS OTHERWISE SPECIFIED

1. INCH DRAWING, DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY.

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

3. -10E SHAFT CONFIGURATION SHOWN.

RoHS

Sensata Technologies
529 PLEASANT STREET
P.O. BOX 2964
ATTLEBORO, MA 02703

SIZE	DWG NO.	REV.
C	LAS43-88-000A-P01-DASH	X2
SCALE 1:2	SOLIDWORKS	SHEET 2 OF 2