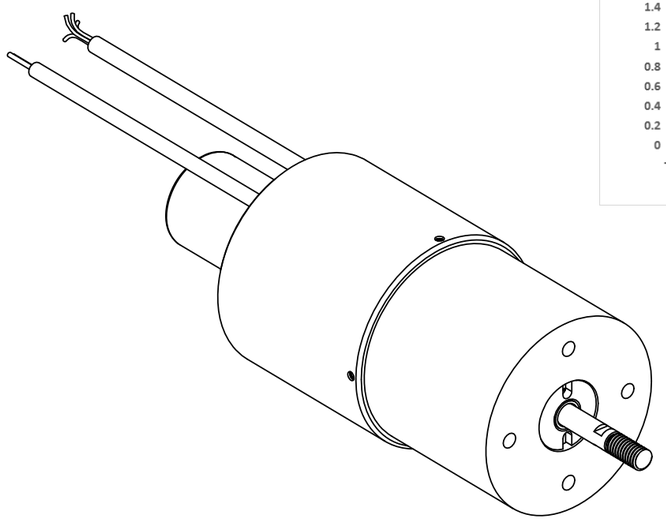
ZONE	REV.	REVISION DESCRIPTION	ECN NO.	DATE
	X3			

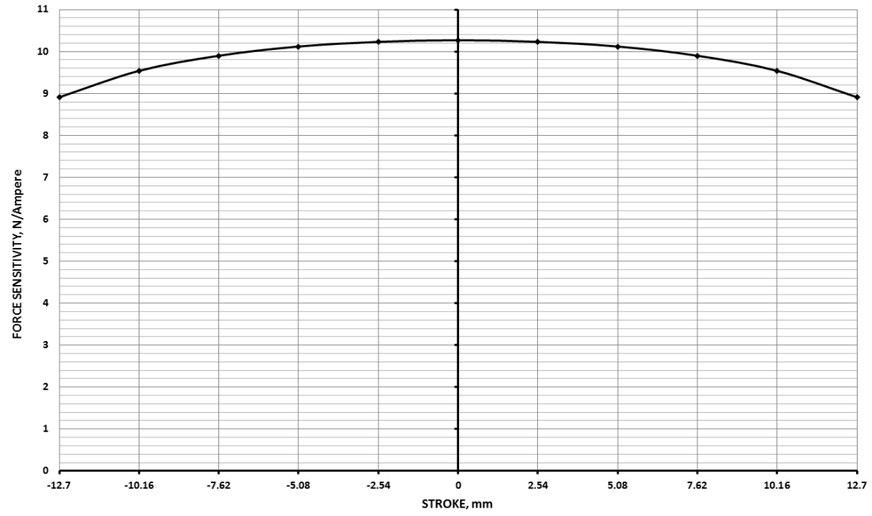
Winding Constants *	Units	Tol	Symbol	Wdg A
DC Resistance	Ohms	± 12.5%	R	3.4
Voltage @ F_{PS}	Volts	Nominal	V_{PS}	35.4
Current @ F_{PS}	Amps	Nominal	I_{PS}	10.4
Current @ Fcs	Amps	Nominal	Ics	2.26
Force Sensitivity @ F_{PS}	N/Amp	± 10%	K_{FPS}	10.27
	lb/Amp	± 10%		2.31
Force Sensitivity @ No-Load	N/Amp	± 10%	K_{F0}	10.27
	lb/Amp	± 10%		2.31
Back EMF Constant	V/(m/sec)	± 10%	K_B	10.27
	V/(ft/sec)	± 10%		3.13
Inductance ****	mH	± 15%	L	1.82

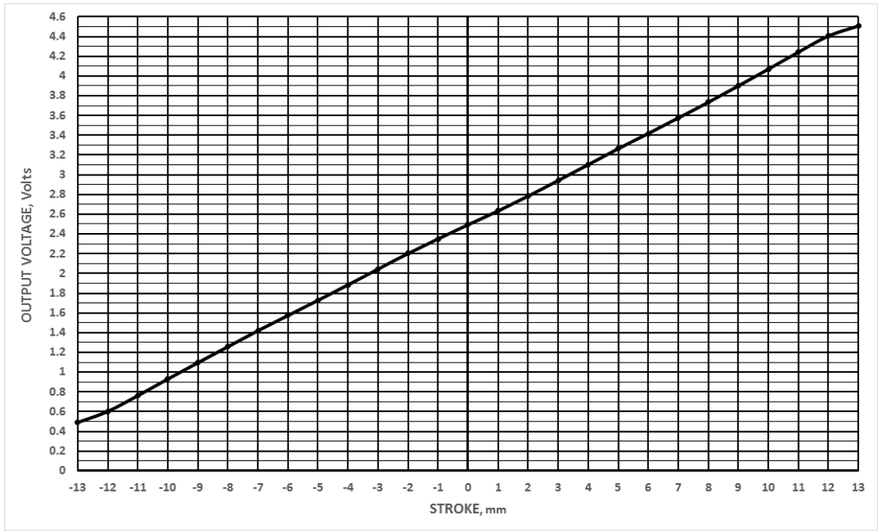
Linear Actuator Parameters *	Units	Symbol	Value
Peak Stall Force**	N	F_{PS}	106.7
	lb		24
Continuos Stall Force ***	N	F_{CS}	23.2
	lb		5.2
Actuator Constant	N/√Watt	K_A	5.57
	lb/√Watt		1.25
Electrical Time Constant	ms	τ_E	0.535
Mechanical Time Constant	ms	τ_M	5.6
Theoretical Acceleration	m/s^2	a_T	616.8
	ft/s^2		2,023.5
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f_{max}	35.4/39.3
Power I^2R @ Fp_S	Watts	P_{PS}	367.7
Stroke	± mm	S_L	12.7
	± in		0.5
Mass, Moving Coil Assembly	kg	M_{CA}	0.173
	lb		0.38
Thermal Resistance	°C/Watt	Θ_{TH}	5
Maximum Allowable Winding Temp	°C	T_W	155
Mass, Total	kg	M_{FA}	1.08
	lb		2.38

* 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







RoHS

SOLIDWORKS

METRIC DRAWING

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 MILLIMETERS.

TOLERANCES

DECIMALS	ANGLES
X ± 0.8	X.X˚ ± 0˚30'
X.X ± 0.25	
X.XX ± 0.13	

DO NOT SCALE DRAWING

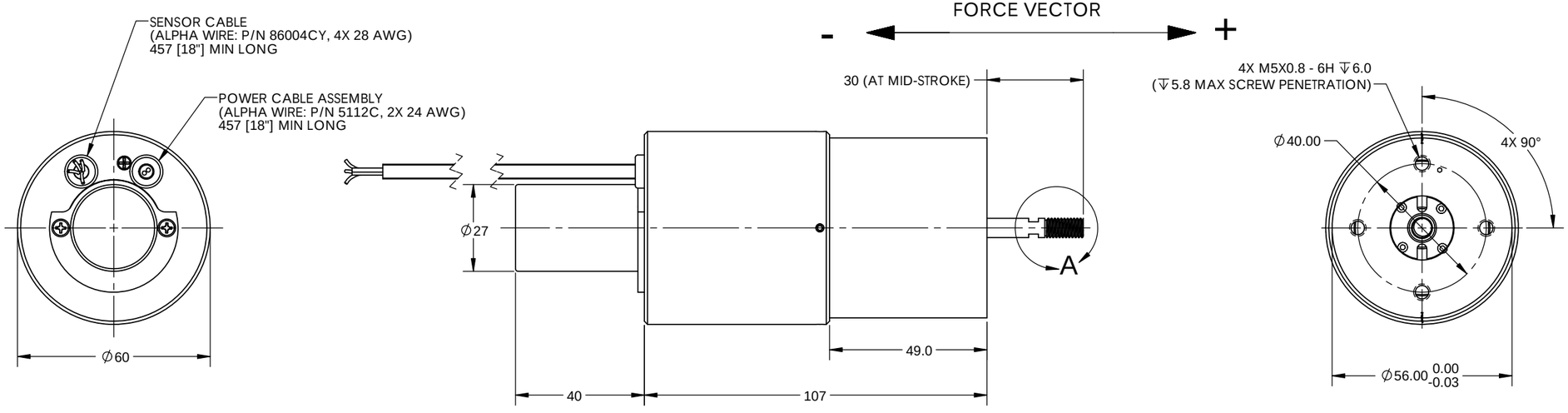
THIRD ANGLE PROJECTION

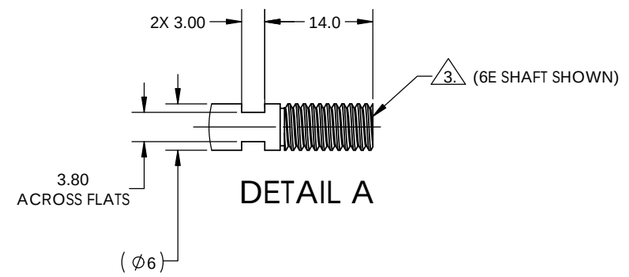
Sensata Technologies
529 PLEASANT STREET
P.O. BOX 2964
ATTLEBORO, MA 02703

TITLE
LINEAR ACTUATOR SYSTEM

SIZE	DWG NO.	REV.
C	LAS22-42-000A-P01-DASH	X3

SCALE 1:1 SHEET 1 OF 2





(DASH)	SHAFT END CONFIGURATION
6I	6mm Diameter,Internal Thread M4x0.7 X 12 mm Deep
6E	6mm Diameter,External Thread M6x1.0 X 12mm Long

NOTES: UNLESS OTHERWISE SPECIFIED

1. METRIC DRAWING, DIMENSIONS IN BRACKETS [ ] ARE IN INCHES AND ARE FOR REFERENCE ONLY.
2. A POSITIVE (+) VOLTAGE APPLIED TO THE BROWN LEAD OF THE POWER CABLE ASSEMBLY WILL PRODUCE A FORCE ON THE COIL ASSEMBLY (SHAFT) IN THE POSITIVE (+) DIRECTION.
3. -6E SHAFT CONFIGURATION SHOWN.

METRIC DRAWING

RoHS

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

SIZE	DWG NO.	REV.
C	LAS22-42-000A-P01-DASH	X3

SCALE 1:1 | SOLIDWORKS | SHEET 2 OF 2