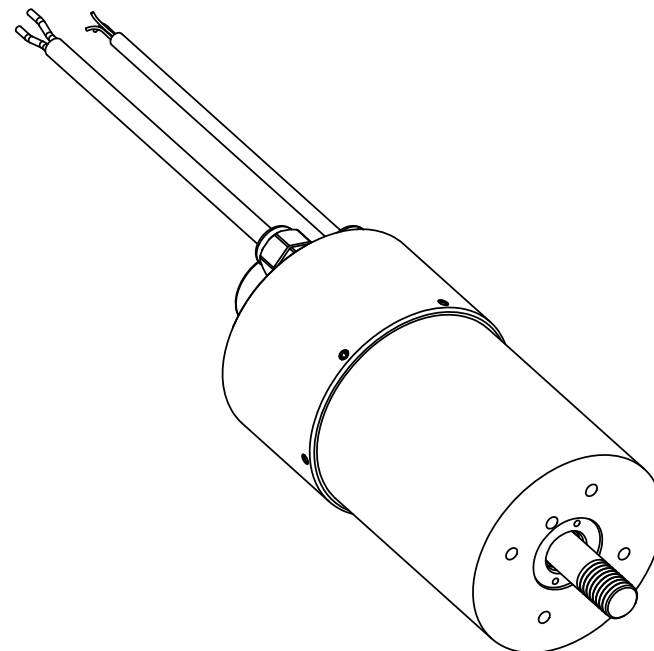


Winding Constants *	Units	Tol	Symbol	Wdg	A
DC Resistance	Ohms	± 12.5%	R	2.4	
Voltage @ F <sub>p</sub>	Volts	Nominal	V <sub>p</sub>	31.6	
Current @ F <sub>p</sub>	Amps	Nominal	I <sub>p</sub>	13.16	
Force Sensitivity	N/Amp	± 10%	K <sub>F</sub>	20.28	
	LB/Amp	± 10%		4.56	
Back EMF Constant	V/(m/sec)	± 10%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

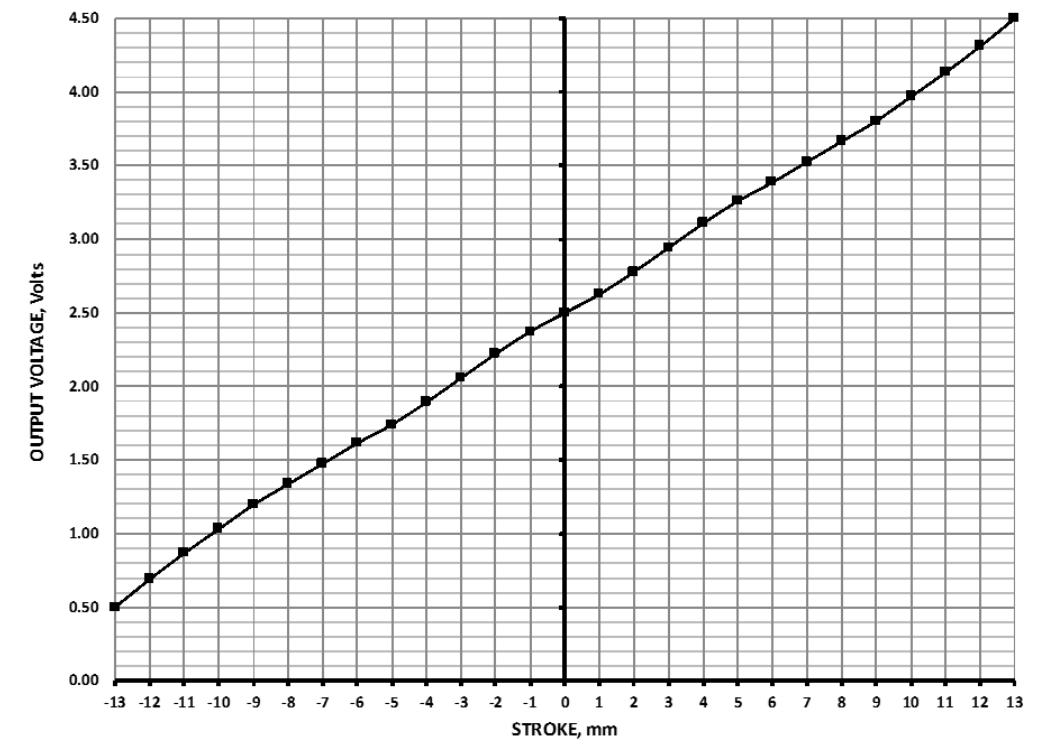
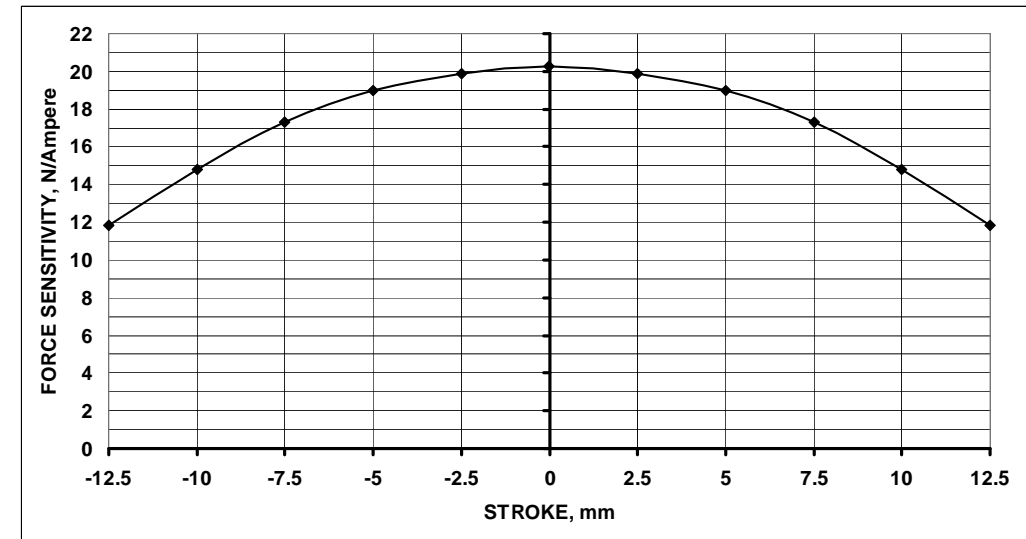
Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	N	F <sub>p</sub>	266.9
	LB		60
Continuous Stall Force ***	N	F <sub>CS</sub>	60.1
	LB		13.5
Actuator Constant	N/√Watt	K <sub>A</sub>	13.09
	LB/√Watt		2.94
Electrical Time Constant	milli-sec	τ <sub>E</sub>	1.31
Mechanical Time Constant	milli-sec	τ <sub>M</sub>	4.4
Theoretical Acceleration	m/sec <sup>2</sup>	α <sub>T</sub>	353.5
	ft/sec <sup>2</sup>		1159.8
Max Theoretical Frequency @ Full Stroke & Sinusoidal/Triangular Motion	Hz	f <sub>max</sub>	26.8/29.7
Power I <sup>2</sup> R @ F <sub>p</sub>	Watts	P <sub>p</sub>	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 <sub>TH</sub>	4.11
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	Kg	WT <sub>C</sub>	0.755
	LB		1.66
Total Weight	Kg	WT <sub>T</sub>	2.4
	LB		5.29

\* 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 <sub>CC</sub>	INPUT VOLTAGE ( 5 VOLTS)
GREEN	GND	GROUND
BLACK	V <sub>O</sub>	OUTPUT VOLTAGE
WHITE	V <sub>PP</sub>	VOLTAGE FOR PROGRAMMING ONLY, NOT TO BE USED BY CUSTOMER



ZONE	REV.	REVISION DESCRIPTION	ECN NO.	DATE
	X2			

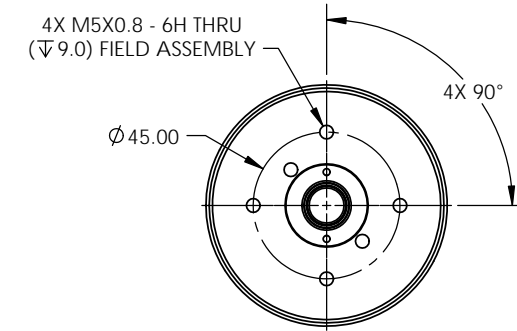
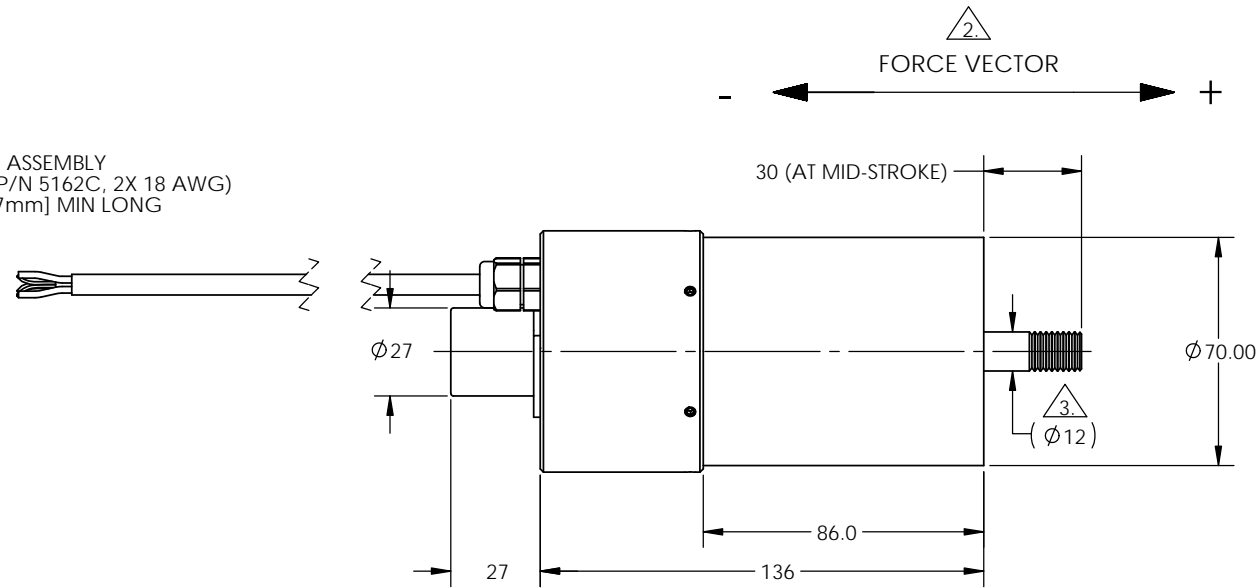
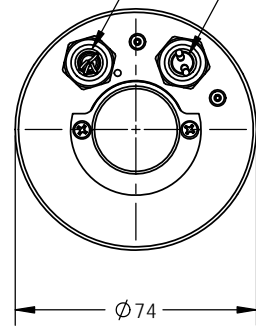


SOLIDWORKS

FOR REFERENCE ONLY, CHECK LATEST REVISION BEFORE USE.		Sensata Technologies	
DRAWN	SENSATA TECHNOLOGIES PROPRIETARY AND CONFIDENTIAL. NEITHER THIS PRINT NOR THE INFORMATION CONTAINED HEREON IS TO BE USED AGAINST THE INTERESTS OF ANY OF ITS AFFILIATED COMPANIES OR WHOLLY OWNED SUBSIDIARIES.	529 PLEASANT STREET	P.O. BOX 2964
DATE	INTERPRET DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS.	ATTLEBORO, MA 02703	
ENGINEER	TOLERANCES	TITLE	
DATE	DECIMALS      ANGLES	LINEAR ACTUATOR SYSTEM	
APPROVED	X ± 0.8      X.X° ± 0°30'	SIZE	DWG NO.
M. GODKIN	X.X ± 0.25	C	LAS28-53-000A-P01-DASH
DATE 05/31/19	X.XX ± 0.13	SCALE	REV.
APPROVED	DO NOT SCALE DRAWING	2:3	X2
DATE	THIRD ANGLE PROJECTION	SHEET 1 OF 2	

SENSOR CABLE  
(ALPHA WIRE: P/N 86004CY, 4X 28 AWG)  
18 INCHES [457mm] MIN LONG

POWER CABLE ASSEMBLY  
(ALPHA WIRE: P/N 5162C, 2X 18 AWG)  
18 INCHES [457mm] MIN LONG



(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

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 RED LEAD OF THE POWER CABLE ASSEMBLY WILL PRODUCE A FORCE ON THE COIL ASSEMBLY (SHAFT) IN THE POSITIVE (+) DIRECTION.
3. -12E SHAFT CONFIGURATION SHOWN.

**METRIC DRAWING**

		529 PLEASANT STREET P.O. BOX 2964 ATTLEBORO, MA 02703
SIZE	DWG NO.	REV.
C	LAS28-53-000A-P01-DASH	X2
SCALE	2:3	SOLIDWORKS SHEET 2 OF 2

