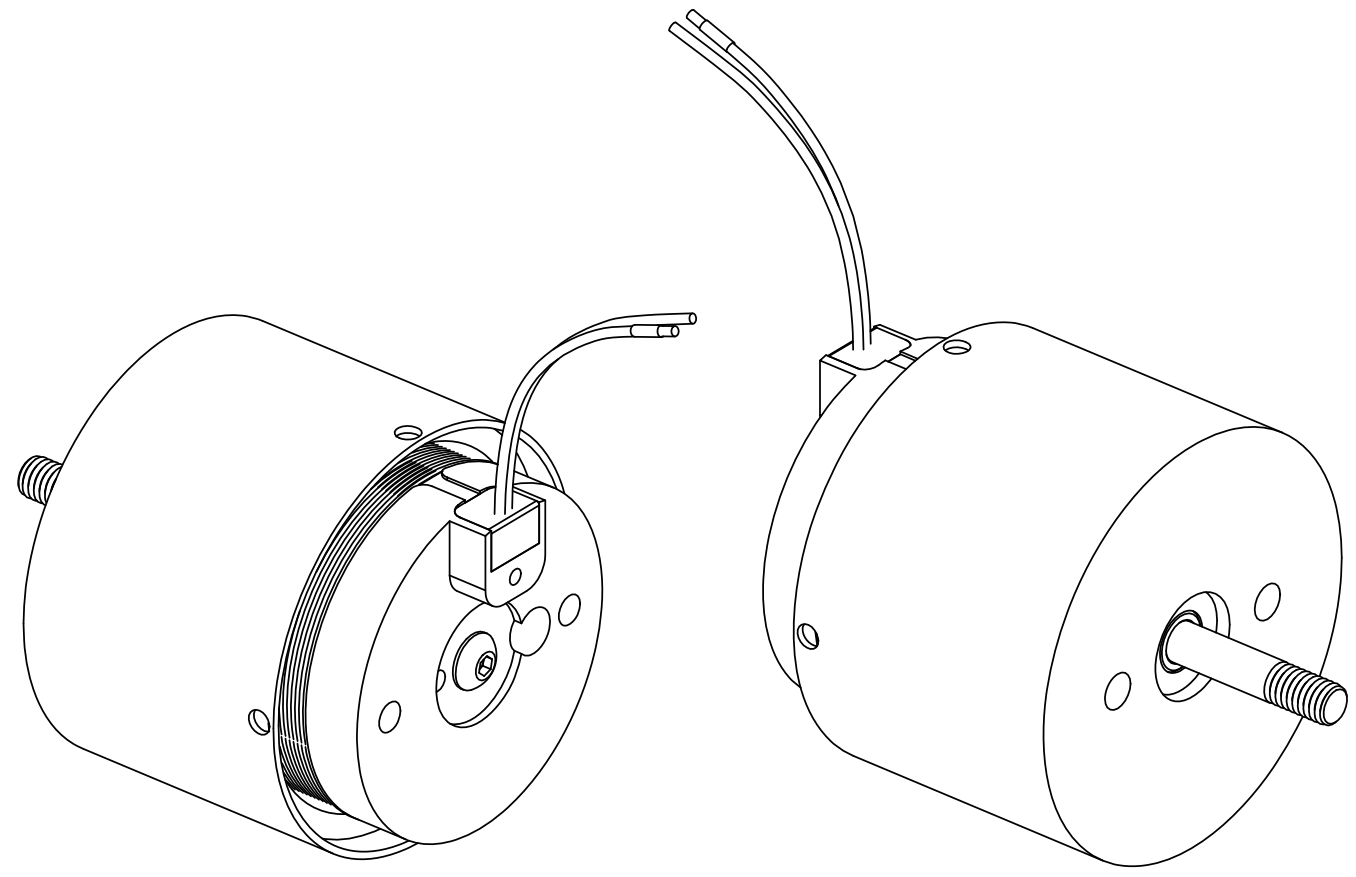


Winding Constants *	Units	Tol	Symbol	Wdg	A
DC Resistance	Ohms	± 12.5%	R	17.1	
Voltage @ F <sub>P</sub>	Volts	Nominal	V <sub>P</sub>	27.2	
Current @ F <sub>P</sub>	Amps	Nominal	I <sub>P</sub>	1.59	
Force Sensitivity	LB/Amp	± 10%	K <sub>F</sub>	2.2	
	N/Amp	± 10%		9.79	
Back EMF Constant	V/(ft/sec)	± 10%	K <sub>B</sub>	2.98	
	V/(m/sec)	± 10%		9.79	
Inductance ****	milli-Henry	± 15%	L	2.8	

Linear Actuator Parameters *	Units	Symbol	Value
Peak Force **	LB	F <sub>P</sub>	3.5
	N		15.57
Continuos Stall Force ***	LB	F <sub>CS</sub>	1.14
	N		5.07
Actuator Constant	LB/√Watt	K <sub>A</sub>	0.53
	N/√Watt		2.36
Electrical Time Constant	micro-sec	τ <sub>E</sub>	164
Mechanical Time Constant	milli-sec	τ <sub>M</sub>	2.84
Theoretical Acceleration	ft/sec <sup>2</sup>	α <sub>T</sub>	3212.6
	m/sec <sup>2</sup>		979.2
Max Theoretical Frequency @ Full Stroke and Sinusoidal / Triangular Motion	Hz	f <sub>max</sub>	88.4/98.2
Power I <sup>2</sup> R @ F <sub>P</sub>	Watts	P <sub>P</sub>	43.3
Stroke:	+ in		0.125
	+ mm		3.18
Clearance on Each side of Coil	in		0.015
	mm		0.38
Thermal Resistance of Coil in still air	°C/Watt	θ <sub>TH</sub>	18.7
Maximum Allowable Coil Winding Temp	°C	Temp	155
Weight of Coil Assembly	LB	WT <sub>C</sub>	0.035
	g		15.9
Weight of Field Assembly	LB	WT <sub>F</sub>	0.22
	g		99.8

\* 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.

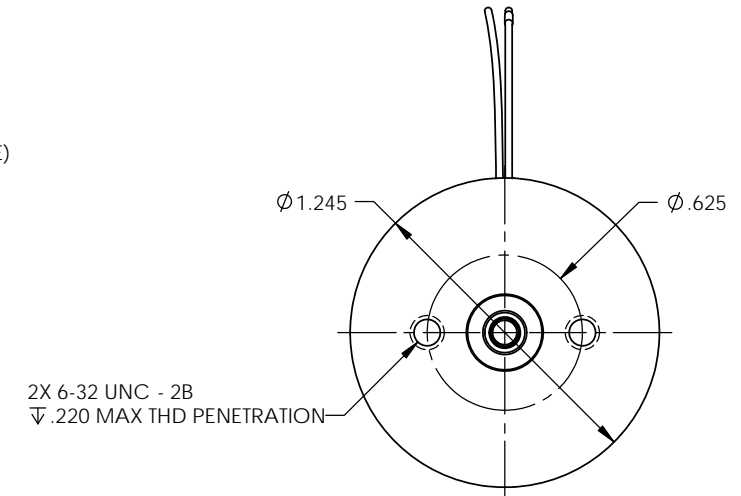
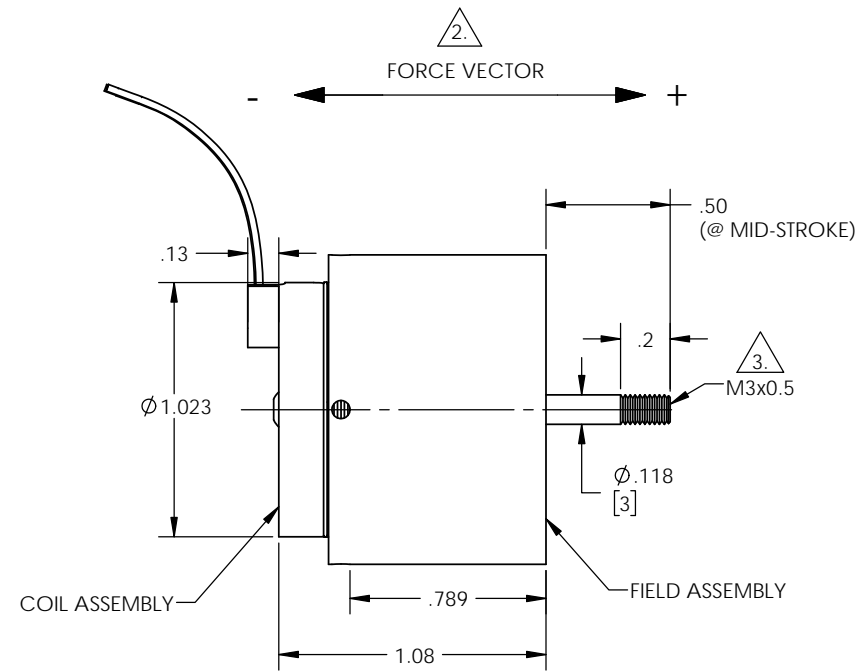
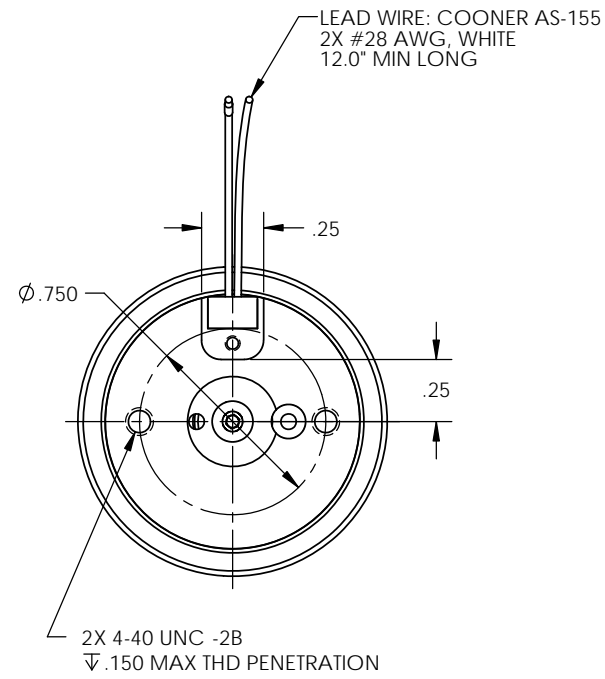
ZONE	REV.	REVISION DESCRIPTION	ECN NO.	DATE
	X2			



SOLIDWORKS

FOR REFERENCE ONLY, CHECK LATEST REVISION BEFORE USE.		529 PLEASANT STREET P.O. BOX 2964 ATTLEBORO, MA 02703	
DRAWN	DATE	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.	
ENGINEER	DATE	INTERPRET DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.	
APPROVED	DATE	TOLERANCES DECIMALS      ANGLES X.X            ± 0.03      X.X° ± 0°30' X.XX          ± 0.01 X.XXX        ± 0.005	
APPROVED	DATE	DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION
TITLE		SIZE	REV.
LINEAR ACTUATOR		C	X2
DWG NO.		SCALE	SHEET
LA13-11-001A-DASH NO.		3:1	1 OF 2





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 MARKED LEAD WIRE WILL PRODUCE A FORCE ON THE COIL ASSEMBLY (SHAFT) IN THE POSITIVE (+) DIRECTION.

3. -3E SHAFT CONFIGURATION SHOWN.

(DASH)#	SHAFT END CONFIGURATION
-3S	3mm Diameter
-3E	3mm Diameter, External Thread M3x0.5 X .2 [5.08mm] Long



529 PLEASANT STREET  
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SIZE	DWG NO.	REV.
C	LA13-11-001A-DASH NO.	X2
SCALE	2:1	SOLIDWORKS SHEET 2 OF 2