



D-FRAME SOLENOID

Two position linear solenoid with D-frame construction.

Features

- Balance of cost and performance
- DC solenoids available
- UL approval on many models



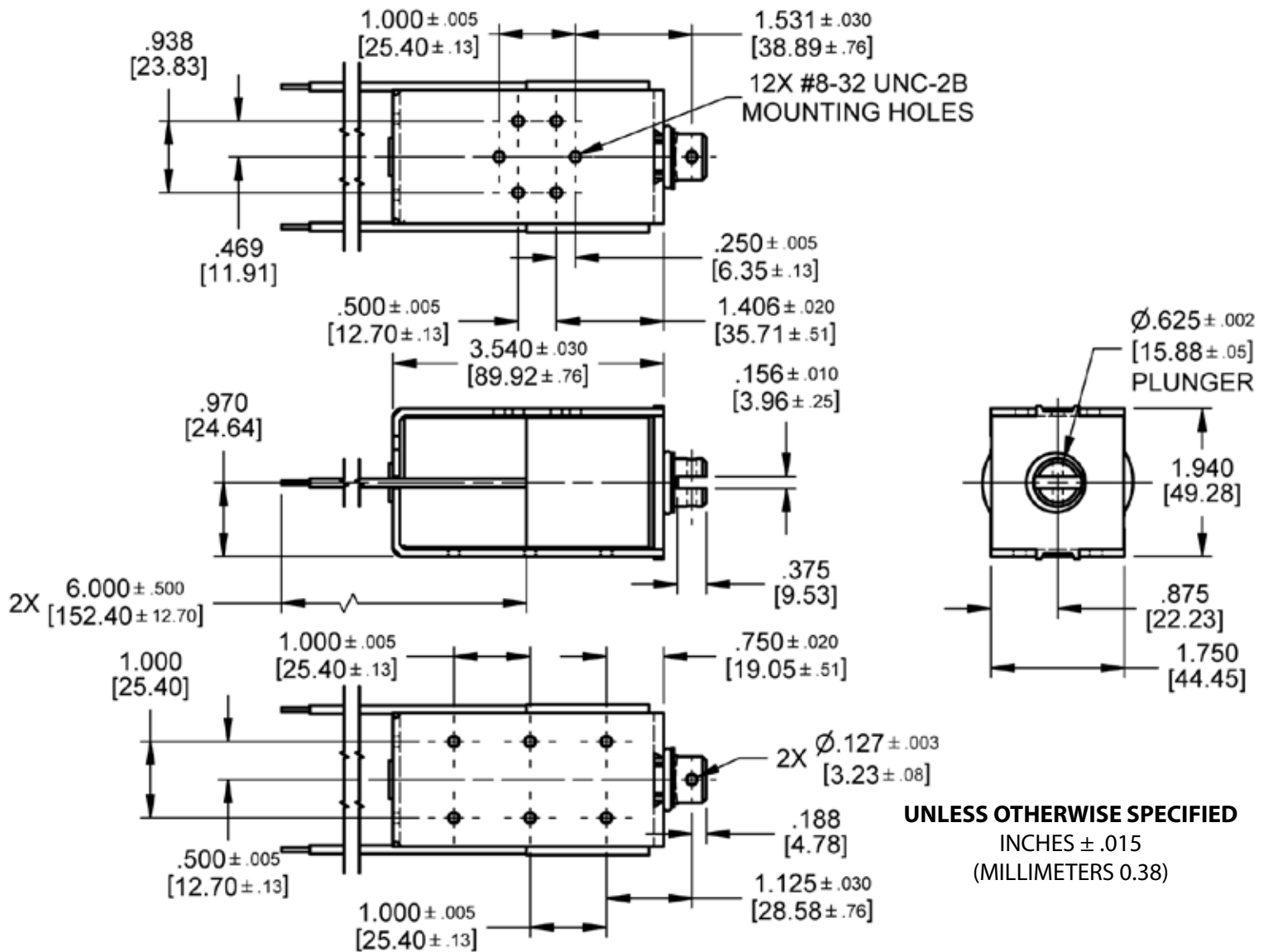
Electrical Specifications	
Coil Voltages	6, 12, 24, 110 VDC
Coil Power	23 Watts Continuous, 58 Watts Intermittent, 230 Watts Pulse
Coil Termination	Wire leads (standard)
Duty Cycle	Continuous, intermittent and pulse duty available (see standard part numbers on page 4)
Coil Treatment	Tape Wrapped
Insulation Class	Class A Rating - 105°C (221°F) Max. (standard) Class B Rating - 130°C (266°F) Max. (optional)
Dielectric Strength	30 Volts and Under: 500 VRMS Over 30 Volts: 1000 VRMS plus 2X rated voltage for 1 minute
Mechanical Specifications	
Size	3.540" [89.9] (L) x 1.750" [44.5] (W) x 1.940" [49.3] (H) (See page 2 for dimensional drawing)
Forces	See force curves on page 3
Plunger Diameter	Ø 0.625" [15.9]
Plunger Guide Material	Plastic
Mounting	12X #8-32 UNC-2B
Weight	Plunger - 4.3 oz [121.9 gms], Total - 34.0 oz [963.9 gms]
Life Expectancy	250,000 Cycles (Dependent on load conditions)
Agency Approval	
	UL File No. E57982 For Continuous Duty UL File No. E74443 For Insulation Systems S105, S130

Dimensions: inches [mm]

D-90

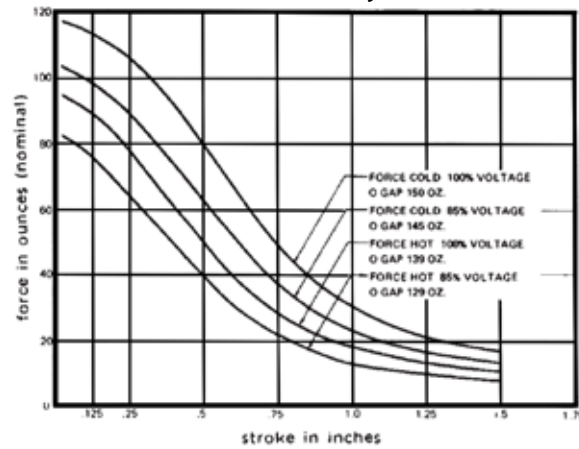
Dimensional View

Units: Inches [mm]

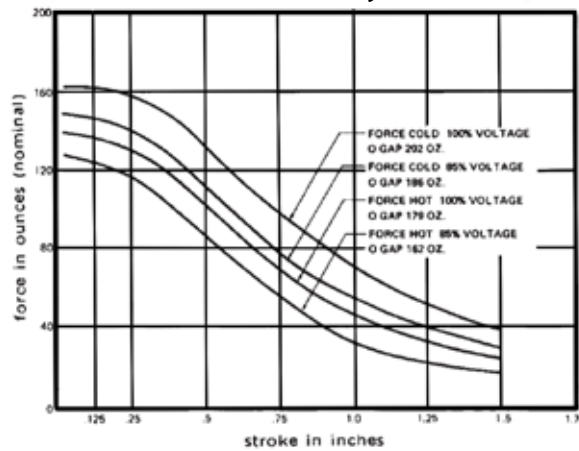


Force Curves

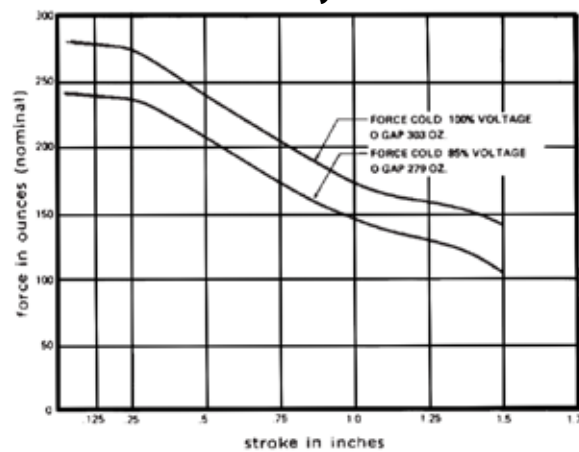
DC Continuous Duty - 23 Watts



DC Intermittent Duty - 58 Watts



DC Pulse Duty - 230 Watts



Standard intermittent duty cycle at nominal voltage is 25%, with three (3) minutes maximum "ON" and nine (9) minutes minimum "OFF" in a repetitive cycle. Standard Pulse duty cycle is 10% with 100 milliseconds "ON" and 900 milliseconds "OFF".

NOTE: Approx 100 sq. in. Heat Sink Required

NOTE: Cold Force @ 25° C (77°F) Coil Temperature

Hot Force @ 110°C (230°F) Coil Temperature

Standard Part Numbers

Parts No.	Voltage	Duty Cycle	Power	Resistance (Ohms)	Operation	Typical Force oz [N] 100% Voltage, 77°F [25°C], Stroke @				
						0.000"	0.125"	0.250"	0.500"	0.750"
53654-80	6 VDC	Continuous	23 Watts	1.58	Pull	150 [41.7]	115 [32.0]	108 [30.0]	80 [22.2]	50 [13.9]
53654-81	12 VDC			6.3						
53654-83	24 VDC			25						
53654-93	110 VDC			506						
53655-81	12 VDC	Intermittent	58 Watts	2.2	Pull	202 [56.2]	162 [45.0]	158 [43.9]	133 [37.0]	100 [27.8]
53655-83	24 VDC			10.2						
53655-93	110 VDC			204						
53656-81	12 VDC	Pulse	230 Watts	0.6	Pull	303 [84.2]	280 [77.8]	275 [76.5]	235 [65.3]	205 [57.0]
53656-83	24 VDC			2.2						
53656-96	110 VDC			51						

(*) Normally Stocked

Non stocked items require a minimum order