

## D-FRAME SOLENOID

Two position linear solenoid with D-frame construction.

### Features

- Balance of cost and performance
- AC solenoids and DC solenoids available
- Encapsulated coils on most models
- UL approval on many models



Electrical Specifications	
Coil Voltages	6, 12, 24, 120, 240 VAC   6, 12, 24, 110 VDC
Coil Power	13 VA Continuous, 37 VA Intermittent, 120 VA Pulse 8.5 Watts Continuous, 21 Watts Intermittent, 85 Watts Pulse
Coil Termination	.187" quick connect terminals (standard) Wire leads optional with tape wrapped coil
Duty Cycle	Continuous, intermittent and pulse duty available (see standard part numbers on page 4)
Coil Treatment	Encapsulated (tape wrapped optional)
Insulation Class	Class A Rating - 105°C (221°F) Max. (standard) Class F Rating - 155°C (311°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	2.015" (L) x 1.000" (W) x 1.218" (H) (See page 2 for dimensional drawing)
Forces	See force curves on page 3
Plunger Diameter	0.4375"
Plunger Guide Material	Plastic
Mounting	2X #8-32 UNC-2B Mounting Holes
Weight	Plunger - 1.06 oz., Total - 7 oz.
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, S130D, S130D1, S155D	

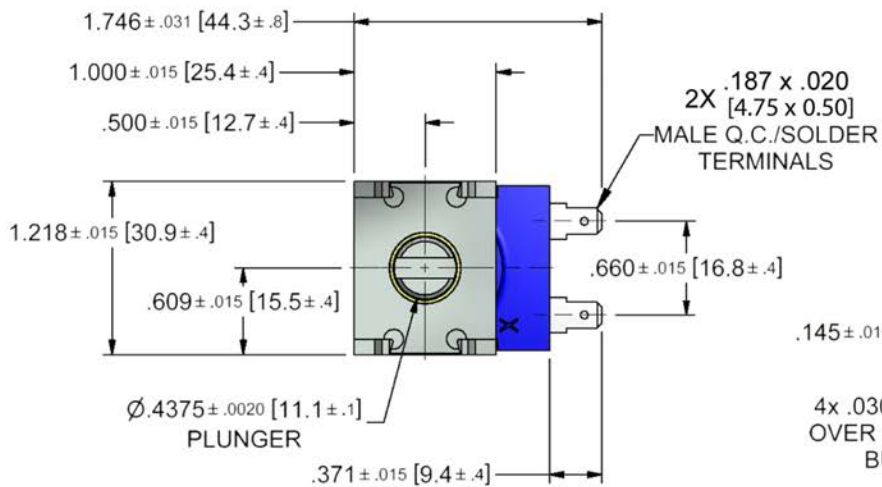
All dimensions in Inches

# D-30

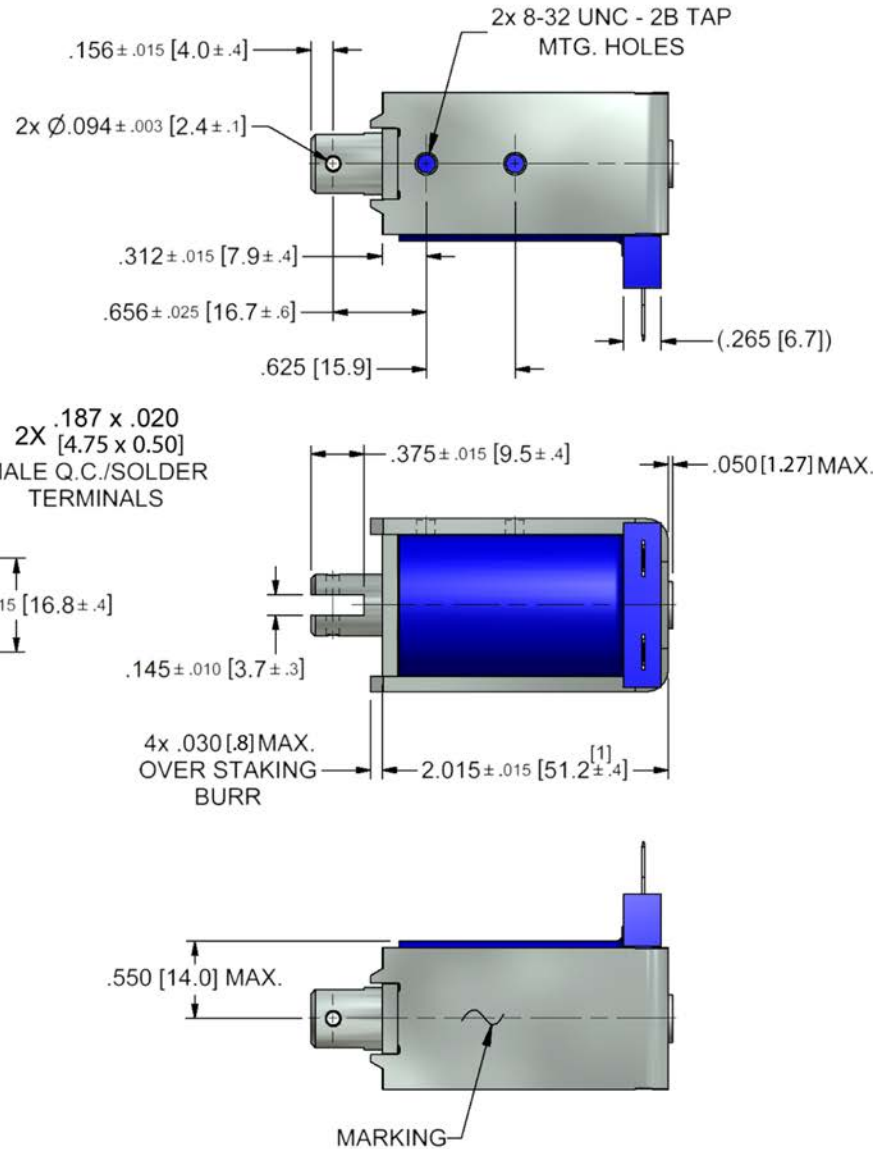
## Dimensional View

Units: Inches [mm]

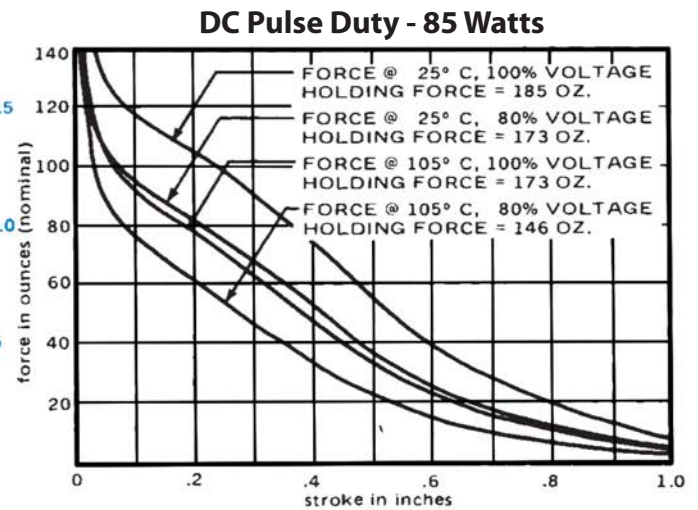
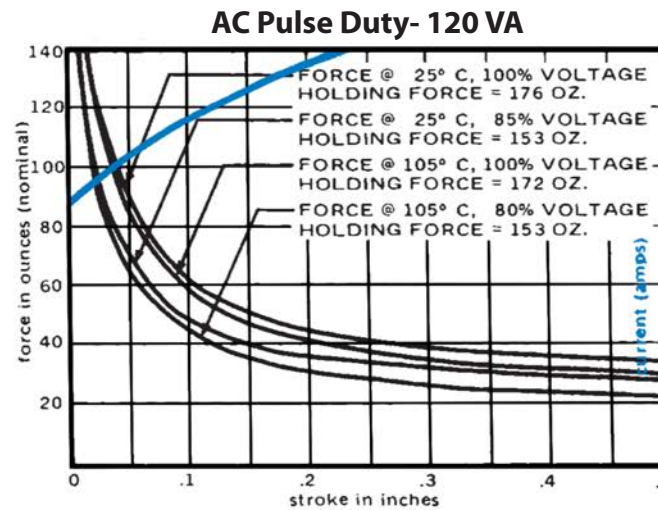
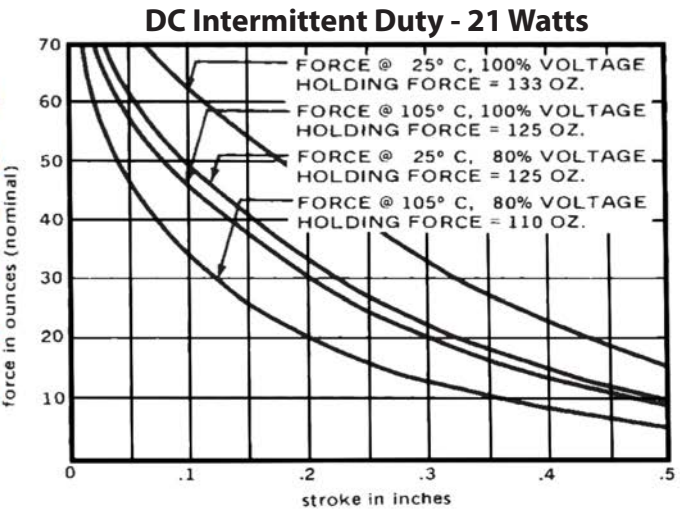
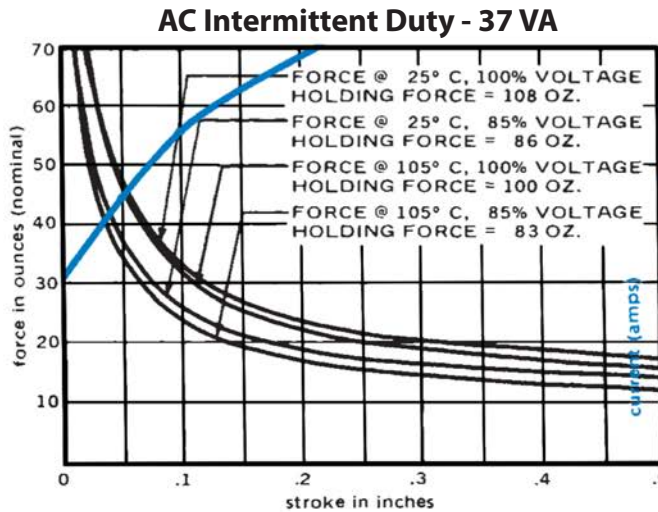
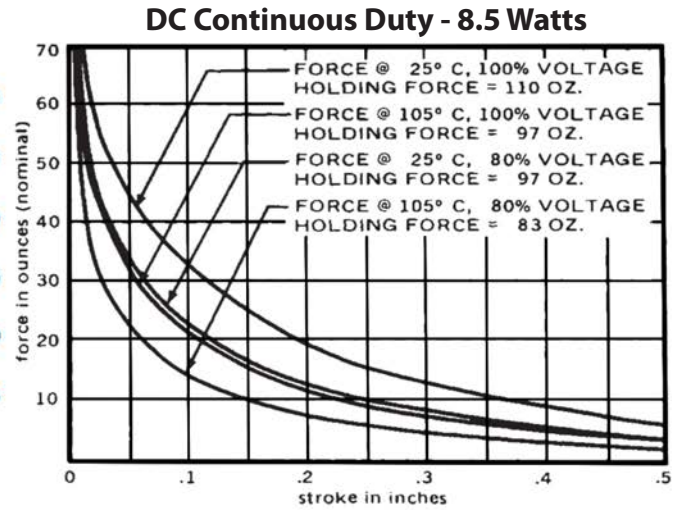
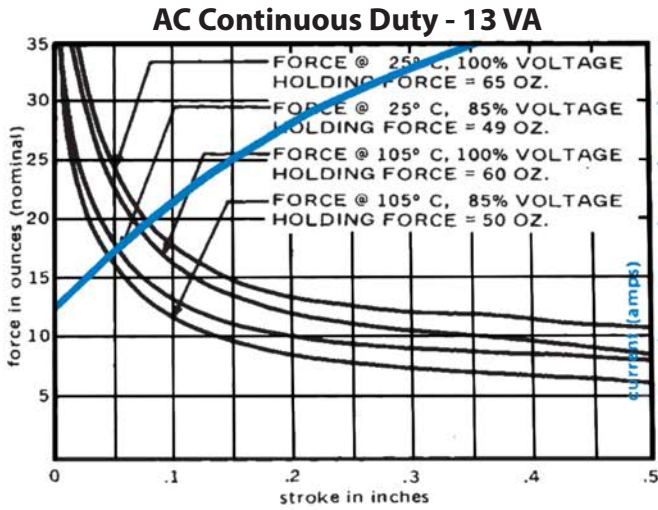
**UNLESS OTHERWISE SPECIFIED**  
INCHES  $\pm .015$   
(MILLIMETERS 0.38)



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(MILLIMETERS 0.38)



## Force Curves



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 36 sq. in. Heat Sink Required

## Standard Part Numbers

Parts No.	Voltage	Duty Cycle	Power	Resistance (Ohms)	Operation	Typical Force (oz). 100% Voltage, 77°, Stroke @				
						0.000"	0.125"	0.250"	0.500"	0.750"
53748-80	6 VAC	Continuous	13 VA	0.41	Pull	65	16.5	13	11	0
53748-81	12 VAC			1.65						
53748-82	24 VAC			6.71						
53748-84	120 VAC			172						
53748-85	240 VAC			700						
53748-87	12 VAC	Intermittent	37 VA	0.871	Pull	108	29	21	17	0
53748-88	24 VAC			3.78						
53748-90	120 VAC			86.2						
53748-91	240 VAC			353						
53748-93	12 VAC	Pulse	120 VA	0.43	Pull	176	55	40	33	0
53748-94	24 VAC			1.73						
53748-96	120 VAC			45.5						
53748-97	240 VAC			182						
53749-80	6 VDC	Continuous	8.5 Watts	4.27	Pull	110	28	15	6	0
53749-81*	12 VDC			17.7						
53749-82*	24 VDC			69.8						
53749-84	110 VDC			1470						
53749-86	6 VDC	Intermittent	21 Watts	1.65	Pull	133	58	40	16	0
53749-87*	12 VDC			6.71						
53749-88*	24 VDC			26.8						
53749-90	110 VDC			538						
53749-92	6 VDC	Pulse	85 Watts	0.41	Pull	185	115	97	55	23
53749-93	12 VDC			1.65						
53749-94	24 VDC			6.71						
53749-96	110 VDC			148						

(\*) Normally Stocked

Non stocked items require a minimum order