



## C-FRAME SOLENOID

Two position linear solenoid with C-frame construction.

### Features

- Economical construction
- AC solenoids and DC solenoids available
- Encapsulated coils on most models
- UL approval on many models

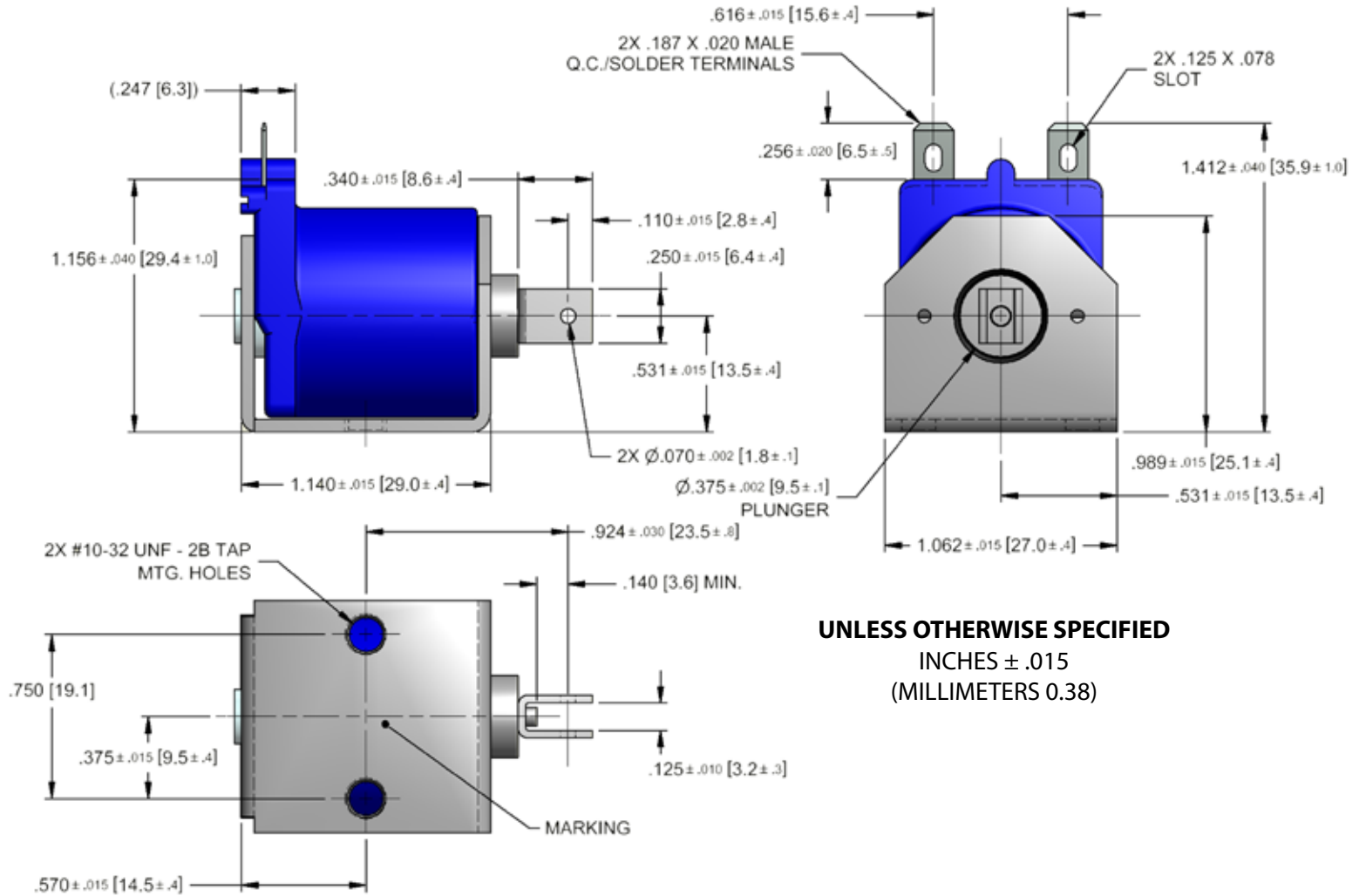


| Electrical Specifications                                                                   |                                                                                                                   |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Coil Voltages                                                                               | 6, 12, 24, 120, 240 VAC   6,12, 24, 110 VDC                                                                       |
| Coil Power                                                                                  | 7.8 VA Continuous, 21 VA Intermittent, 78 VA Pulse<br>5 Watts Continuous, 11.5 Watts Intermittent, 50 Watts Pulse |
| Coil Termination                                                                            | 0.187" [4.7] quick connect terminals (standard)<br>Wire leads optional with tape wrapped coil                     |
| Duty Cycle                                                                                  | Continuous, intermittent and pulse (see standard part numbers on page 4)                                          |
| Coil Treatment                                                                              | Encapsulated (tape wrapped optional)                                                                              |
| Insulation Class                                                                            | Class A Rating - 105°C (221°F) Max.                                                                               |
| Dielectric Strength                                                                         | 30 Volts and Under: 500 VRMS<br>Over 30 Volts: 1000 VRMS plus 2X rated voltage for 1 minute                       |
| Mechanical Specifications                                                                   |                                                                                                                   |
| Size                                                                                        | 1.140" [29.0] (L) 1.062" [27.0] (W) 1.025" [26.0] (H)                                                             |
| Forces                                                                                      | See page 3 for force curves                                                                                       |
| Plunger Diameter                                                                            | Ø 0.375" [9.5]                                                                                                    |
| Plunger Guide Material                                                                      | Plastic                                                                                                           |
| Mounting                                                                                    | 2X #10-32 UNF-2B Mounting Holes                                                                                   |
| Weight                                                                                      | Plunger - 0.6 oz [17.0 gms], Total - 2.5 oz [70.9 gms]                                                            |
| Life Expectancy                                                                             | 250,000 Cycles (Dependent on load conditions)                                                                     |
| Agency Approvals                                                                            |                                                                                                                   |
| UL File No. E57982 For Continuous Duty<br>UL File No. E74443 For Insulation Systems<br>S105 |                                                                                                                   |

Dimensions: inches [mm]

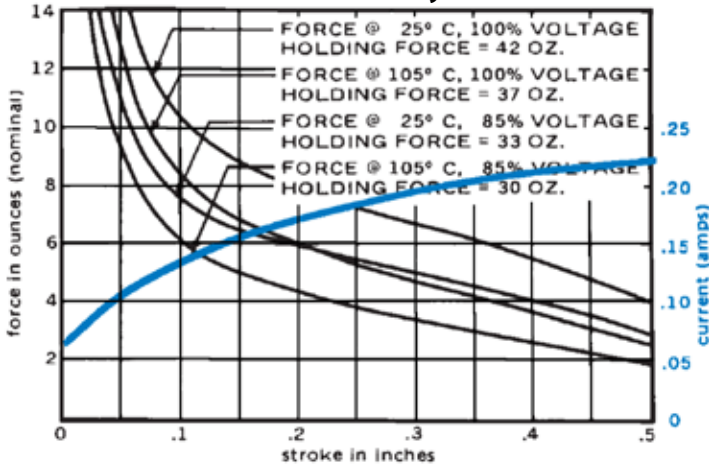
## Dimensional View

Units: Inches [mm]

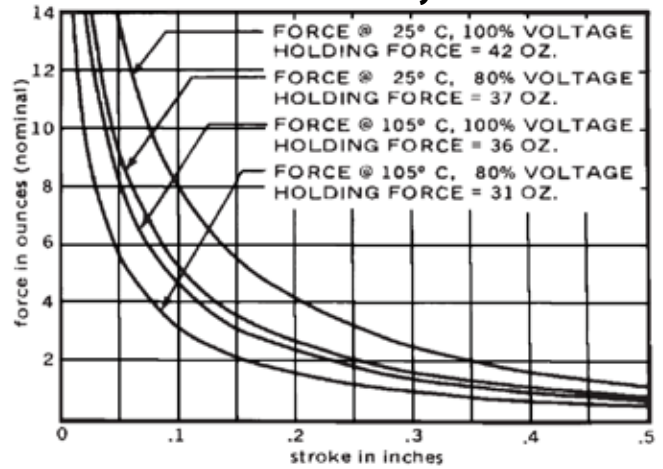


## Force Curves

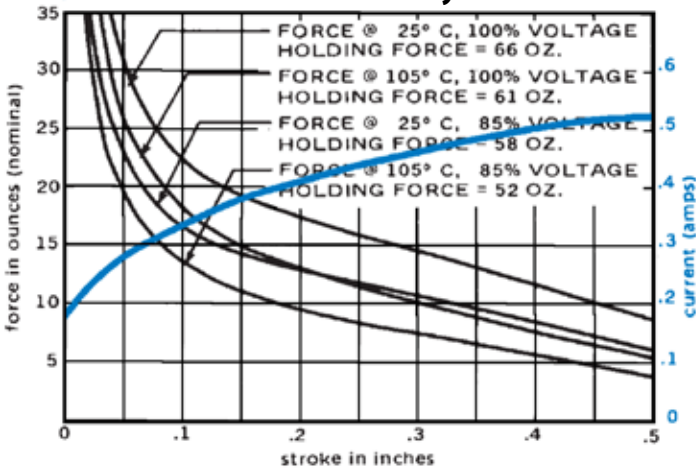
**AC Continuous Duty - 7.8 VA**



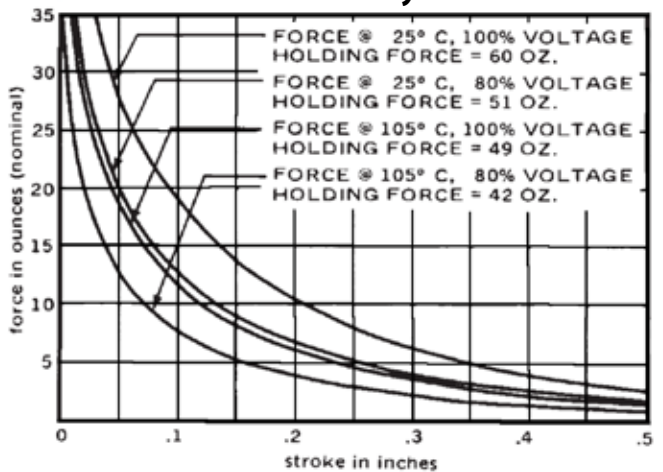
**DC Continuous Duty - 5 Watts**



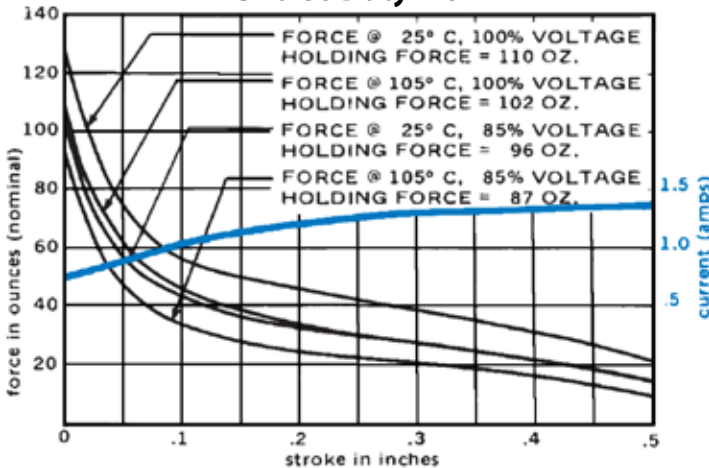
**AC Intermittent Duty - 21 VA**



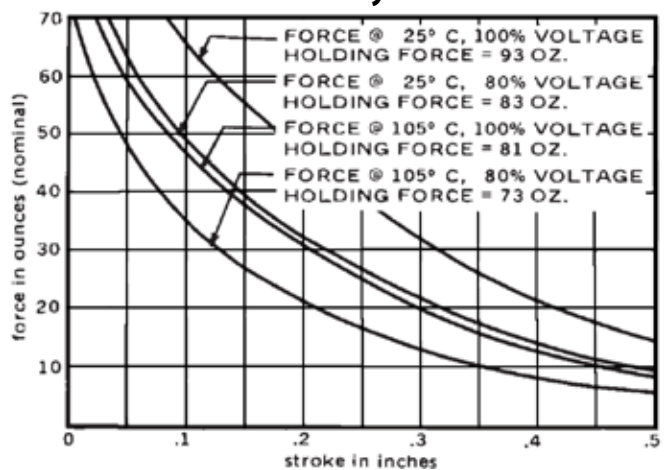
**DC Intermittent Duty - 11.5 Watts**



**AC Pulse Duty- 78 VA**



**DC Pulse Duty - 50 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 36 sq. in. Heat Sink Required

## 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"     |
| 53637-80  | 6 VAC   | Continuous   | 7.8 VA     | 1.23              | Pull      | 42<br>[11.7]                                             | 9<br>[2.5]   | 7<br>[1.9]   | 4<br>[1.1]   | 0<br>[0.0] |
| 53637-81  | 12 VAC  |              |            | 4.92              |           |                                                          |              |              |              |            |
| 53637-83  | 24 VAC  |              |            | 20.1              |           |                                                          |              |              |              |            |
| 53637-94* | 120 VAC |              |            | 509               |           |                                                          |              |              |              |            |
| 53637-97  | 240 VAC |              |            | 2140              |           |                                                          |              |              |              |            |
| 53638-80  | 6 VAC   | Intermittent | 21 VA      | 0.533             | Pull      | 66<br>[18.3]                                             | 20<br>[5.6]  | 16<br>[4.4]  | 8<br>[2.2]   | 0<br>[0.0] |
| 53638-81  | 12 VAC  |              |            | 2.14              |           |                                                          |              |              |              |            |
| 53638-83  | 24 VAC  |              |            | 8.81              |           |                                                          |              |              |              |            |
| 53638-94* | 120 VAC |              |            | 220               |           |                                                          |              |              |              |            |
| 53638-97  | 240 VAC |              |            | 875               |           |                                                          |              |              |              |            |
| 53639-80  | 6 VAC   | Pulse        | 78 VA      | 0.193             | Pull      | 110<br>[30.6]                                            | 52<br>[14.5] | 42<br>[11.7] | 21<br>[5.8]  | 0<br>[0.0] |
| 53639-81  | 12 VAC  |              |            | 0.766             |           |                                                          |              |              |              |            |
| 53639-83  | 24 VAC  |              |            | 3.12              |           |                                                          |              |              |              |            |
| 53639-94  | 120 VAC |              |            | 81.6              |           |                                                          |              |              |              |            |
| 53639-97  | 240 VAC |              |            | 330               |           |                                                          |              |              |              |            |
| 53634-80  | 6 VDC   | Continuous   | 5 Watts    | 7.38              | Pull      | 42<br>[11.7]                                             | 6.5<br>[1.8] | 3<br>[0.8]   | 1<br>[0.3]   | 0<br>[0.0] |
| 53634-81  | 12 VDC  |              |            | 29.1              |           |                                                          |              |              |              |            |
| 53634-83* | 24 VDC  |              |            | 118               |           |                                                          |              |              |              |            |
| 53634-93  | 110 VDC |              |            | 2300              |           |                                                          |              |              |              |            |
| 53635-80  | 6 VDC   | Intermittent | 11.5 Watts | 3.12              | Pull      | 60<br>[16.7]                                             | 16<br>[4.4]  | 8<br>[2.2]   | 2.5<br>[0.7] | 0<br>[0.0] |
| 53635-81  | 12 VDC  |              |            | 12.6              |           |                                                          |              |              |              |            |
| 53635-83* | 24 VDC  |              |            | 50.5              |           |                                                          |              |              |              |            |
| 53635-93  | 110 VDC |              |            | 1060              |           |                                                          |              |              |              |            |
| 53636-80  | 6 VDC   | Pulse        | 50 Watts   | 0.728             | Pull      | 93<br>[25.9]                                             | 60<br>[16.7] | 40<br>[11.1] | 15<br>[4.2]  | 0<br>[0.0] |
| 53636-81  | 12 VDC  |              |            | 2.96              |           |                                                          |              |              |              |            |
| 53636-83  | 24 VDC  |              |            | 11.5              |           |                                                          |              |              |              |            |
| 53636-93  | 110 VDC |              |            | 220               |           |                                                          |              |              |              |            |

(\*) Normally Stocked

Non stocked items require a minimum order