

# DC Frame Solenoid



## Model 28

### Features:

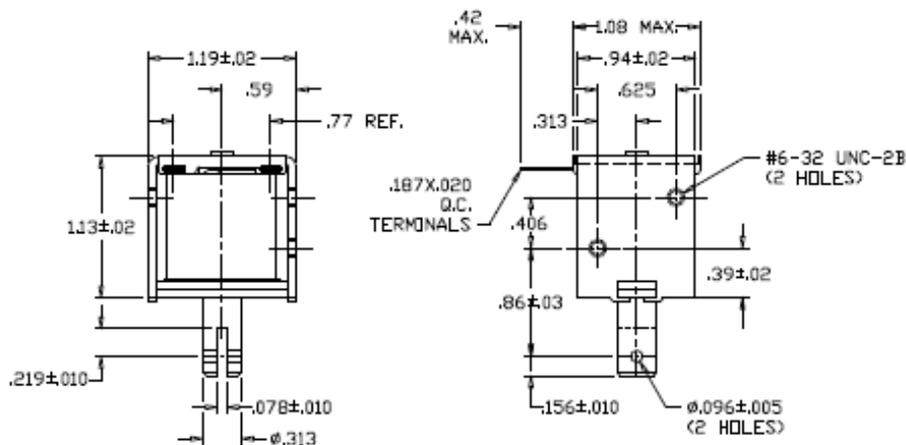
- Available return spring kit
- AC & DC Applications
- See Model 28 AC
- UL recognized

### Electrical:

- Coil Voltages: 6, 12, 24, 48, 110 VDC standard
- Coil Termination: 3/16" QC terminals
- Duty Cycle: 100% Continuous, 25% Intermittent, 10% Intermittent, 1% Pulse
- Coil treatment: Plastic cover
- Insulation Class: Class A Rating - 105° C (221° F)
- Dielectric Strength: 1500V 60 Hz

### Mechanical:

- Size: 1.54" (L) x 1.62" (W) x 1.57" (H)
- Plunger Diameter: 0.313"
- Plunger Guide Material: Plastic
- Mounting: 2 - #6-32 holes
- Weight: Plunger .5 oz, Total 3.5 oz
- Life Expectancy: 1 Million Cycles<sup>1</sup>
- <sup>1</sup> - Dependent on load conditions



Solenoid shown energized with plunger fully seated

### Standard Part Numbers

| Model No. | Part No.       | Duty Cycle | Voltage | Resistance <sup>2</sup> (Ω) | Power (W) | Current |
|-----------|----------------|------------|---------|-----------------------------|-----------|---------|
| 28-C-12D  | A420-065452-00 | Cont.      | 12VDC   | 29.8                        | 5.1       | 403 mA  |
| 28-I-12D  | A420-065453-00 | Inter. 25% | 12VDC   | 11.9                        | 12.7      | 1.01 A  |
| 28-C-24D  | A420-065454-00 | Cont.      | 24VDC   | 116                         | 5.2       | 207 mA  |
| 28-I-24D  | A420-065455-00 | Inter. 25% | 24VDC   | 47.4                        | 12.8      | 403 mA  |

<sup>2</sup> - Coil resistance tolerance +/- 5%

Contact us for custom voltages or duty cycles

**Available Customization:**

- Plunger
- DC Voltage
- Duty Cycle
- Insulation systems up to class H 180° C (356° F)

\* Minimum quantities apply

| Stroke (in.)                  | Typical Push Force Ounces [N] @ 20°C (68°F)<br>(Distance from fully seated position) |           |           |           |          |         | HOLDING FORCE Ounces [N] | Power (W) |
|-------------------------------|--|-----------|-----------|-----------|----------|---------|--------------------------|-----------|
|                               | 0.050  | 0.125     | 0.250     | 0.375     | 0.500    | 0.625   |                          |           |
| Continuous 100%               | 25 [7]   | 10 [2.8]  | 4 [1.1]   | 2 [0.6]   | 1 [0.3]  | N/A     | 76 [21.1]                | 5.1       |
| Intermittent 25%              | 40 [11.1]  | 12 [3.3]  | 7 [1.9]   | 4 [1.1]   | 2 [0.6]  | N/A     | 92 [25.6]                | 12.7      |
| Intermittent 10% <sup>3</sup> | 70 [19.5]  | 50 [13.9] | 35 [9.7]  | 28 [7.8]  | 14 [3.9] | 1 [0.3] | 95 [26.4]                | 38.9      |
| Pulse 1% <sup>3</sup>         | 92 [25.6]  | 85 [23.6] | 65 [18.1] | 58 [16.1] | 28 [7.8] | 3 [0.8] | N/A                      | 95.8      |

Continuous Duty 100% = 100% On Time  
 Intermittent Duty 25% = 25% On Time (100 Seconds On Max Followed By 300 Seconds Off)  
 Intermittent Duty 10% = 90% On Time (10 Seconds On Max Followed By 90 Seconds Off)  
 Pulse Duty 1% = 99% On Time (1 Second On Max Followed By 99 Seconds Off)

<sup>3</sup> - Calculated force values to be verified in application

Optional Return Spring Kit

A490-367461-08



**GUARDIAN-ELECTRIC.COM**

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