

# DC Tubular Solenoid



## Model T12x13

### Features:

- High performance construction
- Available return spring kit
- DC solenoid applications only
- See TP12x13 for push application
- UL recognized



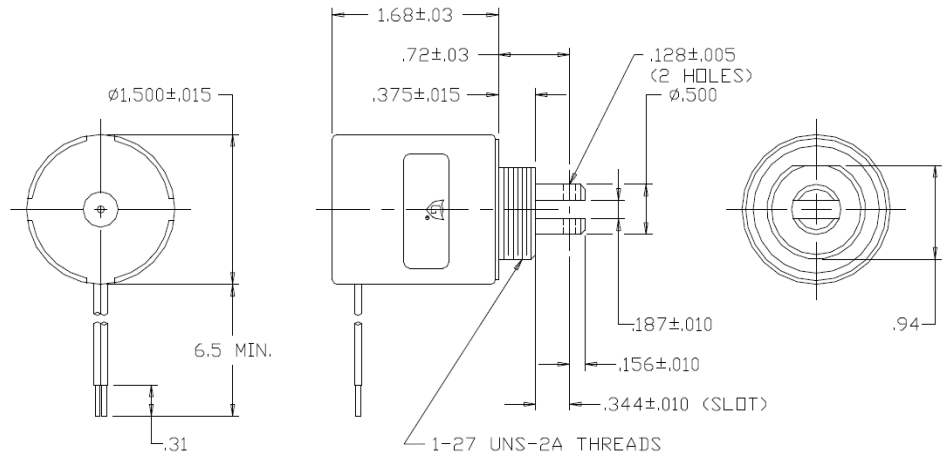
### Electrical:

- Coil Voltages: 6, 12, 24, 48, 110 VDC standard
- Coil Termination: 6.5" Wire leads
- 22 AWG (standard)
- Duty Cycle: 100% Continuous, 25% Intermittent, 10% Intermittent, 1% Pulse
- Coil treatment: Tape Wrapped
- Insulation Class: Class A Rating - 105°C (221°F)
- Dielectric Strength: 1500V 60 Hz

### Mechanical:

- Size: 1.63" (L) x 1.5" (D)
- Plunger Diameter: 0.5
- Plunger Guide Material: Plastic
- Mounting: Hex Nut
- Weight: Plunger 1.7 oz, Total 10.2 oz
- Life Expectancy: 1 Million Cycles<sup>1</sup>

<sup>1</sup> - Dependent on load conditions



Solenoid shown energized with plunger fully seated  
Supplied with mounting bracket, hex nut and lock washer shipped loose

### Standard Part Numbers

Model	Part Number	Duty Cycle	Voltage	Resistance <sup>2</sup> (Ω)	Power (W)	Current (mA)
T12x13-C-12D	A420-066051-00	Cont.	12VDC	22.8	6.6	526 mA
T12x13-I-12D	A420-066052-00	Inter.	12VDC	7.3	20.7	1.64 A
T12x13-C-24D	A420-066053-00	Cont.	24VDC	90.4	6.7	265 mA
T12x13-I-24D	A420-066054-00	Inter.	24VDC	28.4	21.3	845 mA

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

Contact us for custom voltages or duty cycles

### Available Customization:

- Plunger
  - Lead and Connector
  - DC Voltage
  - Duty Cycle
  - Insulation systems up to class H 180° C (356° F)
- \* Minimum quantities apply

Stroke (in.)	Typical Pull Force Ounces [N] @ 20°C (68°F) (Distance from fully seated position)							HOLDING FORCE Ounces [N]	Power (W)
	0.050	0.125	0.250	0.375	0.500	0.625	0.750		
Continuous 100%	80 [22.2]	40 [11.1]	18 [5]	10 [2.8]	5 [1.4]	2 [0.6]	1 [0.3]	188 [52.3]	6.7
Intermittent 25%	140 [38.9]	104 [28.9]	55 [15.3]	30 [8.3]	20 [5.6]	15 [4.2]	7 [1.9]	215 [59.8]	21
Intermittent 10% <sup>3</sup>	220 [61.2]	184 [51.2]	145 [40.3]	121 [33.6]	102 [28.4]	89 [24.7]	73 [20.3]	546 [151.8]	62
Pulse 1% <sup>3</sup>	252 [70.1]	218 [60.6]	180 [50]	154 [42.8]	137 [38.1]	125 [34.8]	108 [30]	N/A	198

Continuous Duty 100% = 100% On Time  
Intermittent Duty 25% = 25% On Time (100 Sec On Max 300 Sec off)  
Intermittent Duty 10% = 90% On Time (10 Sec On Max 90 Sec off)  
Pulse Duty 1% = 99% On Time (1 Sec On Max 99 Sec off)  
<sup>3</sup> - Calculated force values to be verified in application

Optional Return Spring Kit

A490-367460-01



**GUARDIAN-ELECTRIC.COM**

1425 Lake Ave - Woodstock IL 60098 - Phone: 800-762-0369  
The information is subject to change without notice. © Guardian Electric

