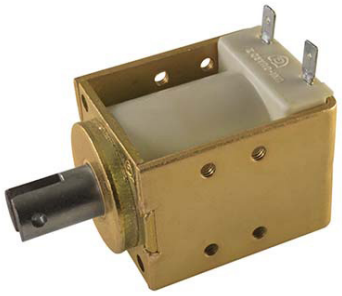
DC Frame Solenoid

Model 4HD

GUARDIAN ELECTRIC
1425 Lake Avenue, Woodstock, IL 60098

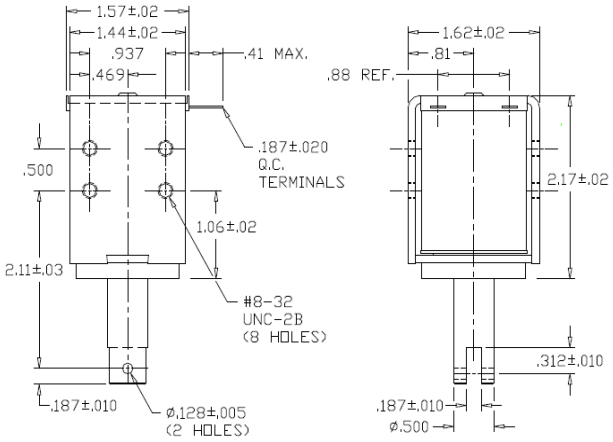


Features:
Available return spring kit
AC & DC Applications (See Model 4HD AC)
UL recognized
RoHS Compliant
Coil Termination: 3/16" QC terminals

Electrical:
Coil Voltages: 6, 12, 24, 48, 110 VDC standard
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: 0.50"
Plunger Guide Material: Plastic
Mounting: 8 - #8-32 holes
Weight: Plunger 2.4 oz, Total 14.1 oz
Life Expectancy: 1 Million Cycles [1]

[1] - Dependent on load conditions



Solenoid shown energized with plunger fully seated

Standard Part Numbers

Model No.	Part No.	Duty Cycle	Voltage	Resistance[2] (Ω)	Power (W)	Current
4HD-C-12D	A420-065432-00	Cont.	12VDC	14.8	10.2	881 mA
4HD-I-12D	A420-065433-00	Inter. 25%	12VDC	4.68	32.3	2.6 A
4HD-C-24D	A420-065434-00	Cont.	24VDC	57.5	10.5	417 mA
4HD-I-24D	A420-065435-00	Inter. 25%	24VDC	18.9	32	1.27 A

2 - Coil resistance tolerance +/- 5%

Contact us for custom voltages or duty cycles

Available Customization:
- Plunger
- DC Voltage / Duty Cycle
- Coil Termination
- Insulation systems up to class H 180° C (356° F)

*** Minimum quantities apply**

Typical Pull Force Ounces [N] @ 20°C (68°F) (Distance from fully seated position)									HOLDING FORCE Ounces [N]	Power (W)
Stroke (in.)	0.050	0.125	0.250	0.375	0.500	0.625	0.750	1.000		
Continuous 100%	118 [32.8]	74 [20.6]	32 [8.9]	17 [4.7]	11 [3.1]	8 [2.2]	5 [1.4]	2 [0.5]	176 [49.0]	10.2
Intermittent 25%	165 [45.9]	130 [36.1]	85 [23.6]	60 [16.7]	40 [11.1]	30 [8.3]	22 [6.1]	20 [5.6]	235 [65.3]	32
Intermittent 10%[3]	230 [63.9]	190 [52.8]	152 [42.3]	125 [34.8]	100 [27.8]	80 [22.2]	75 [20.9]	45 [12.5]	290 [80.6]	72.2
Pulse 1%[3]	255 [70.9]	245 [68.1]	210 [58.4]	175 [48.7]	150 [41.7]	135 [37.5]	115 [32]	70 [19.5]	N/A	146.8

Optional Return Spring Kit
A490-367461-04

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)
[3] - Calculated force values to be verified in application

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