



MAGNETIC LATCHING SOLENOID

D-frame, pull type solenoid with an internal permanent magnet for keeping the plunger in the retracted position without power.

Features

- Innovative design provides more pull and hold force than other solenoids of similar size.
- Low power consumption



Electrical Specifications	
Coil Voltages	6, 12, 24 VDC Standard - Other voltages available on request
Coil Power	21 Watts Intermittent and 85 Watts Pulse- Other options available on request
Coil Termination	Wire leads 18 AWG (standard)
Duty Cycle	Intermittent and pulse duty available (see standard part numbers on page 3)
Coil Treatment	Encapsulated
Insulation Class	Class F Rating - (155° C)
Dielectric Strength	30 Volts and Under: 500 VRMS Over 30 Volts: 1000 VRMS plus 2X rated voltage for 1 minute
Mechanical Specifications	
Size	2.011" [51.1] (L) x 1.000" x [25.4] (W) x 1.218" [30.9] (H) See page 2 for dimensional drawing
Forces	See force curves on page 2
Plunger Diameter	Ø 0.4375" [11.1]
Plunger Guide Material	Plastic
Mounting	2X #8-32 UNC-2B Mounting Holes
Weight	Plunger - 1.2 oz [34 gms], Total - 6.3 oz [178.6 gms]
Life Expectancy	250,000 Cycles (Dependent on load conditions)
Agency Approvals	
UL File No. E74443 For Insulation Systems S105, S130, S130D, S130D1, S155D	

Dimensions: inches [mm]

Deltrol
CONTROLS

Units: Inches [mm]



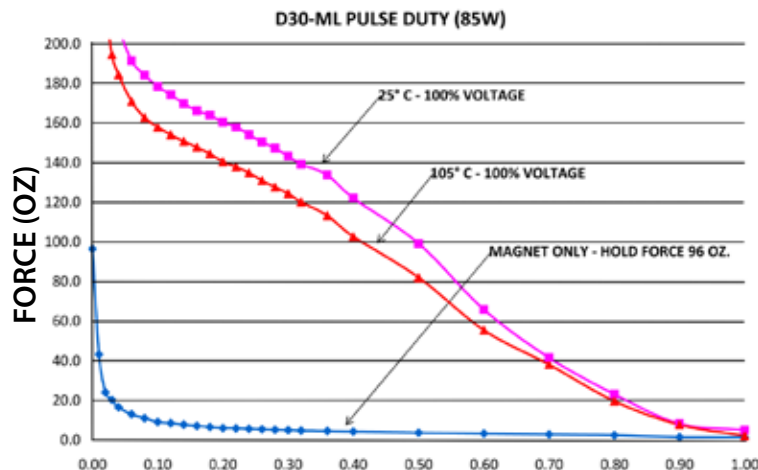
D30-ML INTERMITTENT DUTY (21W)

Force (OZ) vs. Time (s) graph showing the decay of force over time for three conditions:

- 25° C - 100% VOLTAGE (Magenta line)
- 105° C - 100% VOLTAGE (Red line)
- MAGNET ONLY - HOLD FORCE 96 OZ. (Blue line)

The Y-axis represents Force in Ounces (OZ), ranging from 0.0 to 120.0. The X-axis represents Time in seconds (s), ranging from 0.00 to 1.00.

The graph shows that the force decays over time for all three conditions. The 25° C - 100% VOLTAGE condition maintains the highest force for the longest duration, followed by the 105° C - 100% VOLTAGE condition, and the MAGNET ONLY condition maintains the lowest force for the shortest duration.



Specifications subject to change without notice

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"
53803-86*	6 VDC	Intermittent	21 Watts	1.7	Pull	96 [26.7]	65 [18.1]	46 [12.8]	19.7 [5.5]	7.7 [2.1]
53803-87*	12 VDC			6.8						
53803-88*	24 VDC			27.2						
53803-92	6 VDC	Pulse	85 Watts	0.42		96 [26.7]	172 [47.8]	152 [42.3]	99 [27.5]	31 [8.6]
53803-93	12 VDC			1.7						
53803-94	24 VDC			6.8						

(*) Normally Stocked

Non stocked items require a minimum order