Battery Operated Linear Solenoids

All catalog products manufactured after April 1, 2006 are RoHS Compliant

Solenoids are ideal for applications requiring everything from large forces in large packages to small forces in very small packages. Small solenoids are often conducive to battery powered operation. If you have an application from 3-12 volts DC, less than 200 mA and < 1 Watt that requires battery operation, please consider one of these battery operated solenoids Remember that smaller battery operated solenoids provide smaller outputs.

Call us if we can help with your battery operated solenoid application.

Battery Operated Linear Solenoid Overview

Soft Shift® Solenoids

- Quiet operation
- Slow, smooth motion
- Snap action
- Closed loop velocity and position control
- On/off or variable positioning

Model	2EP
Dimensions (in.)	1.125 x 0.996
Duty cycle	continuous or intermittent
Stroke (in.)	up to 0.16
Force (lb.)	up to 3.8
Life	10 million cycles
Power (W)	7–70
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Ledex® Low Profile Solenoids

- Push/pull engagement
- High force
- Short stroke applications
- On/off operation

Model	OEC	1EC	2EC
Dimensions (in.)	0.75 x 0.5	1.0 x 0.53	1.125 x 0.58
Duty cycle	continuous or intermittent	continuous or intermittent	continuous or intermittent
Stroke (in.)	up to 0.15	up to 0.24	up to 0.24
Force (lb.)	up to 5	up to 9	up to 10
Life	1 to 5 million cycles	1 to 5 million cycles	1 to 5 million cycles
Power (W)	4.5-45	5-50	7-70
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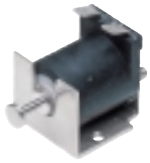
STA® Tubular Solenoids

- Pull operation
- Well suited for lock/latch applications
- Multiple plunger designs
- On/off operation

Model	STA® 1/2" x 1/2"	STA® 1/2" x 1"	STA® 3/4 "x 1-1/2 "
Dimensions (in.)	0.52 x 0.55	0.52 x 1.05	0.77 x 1.56
Duty cycle	continuous or intermittent	continuous or intermittent	continuous or intermittent
Stroke (in.)	up to 0.1	up to 0.5	up to 0.7
Force (lb.)			
Pull Models	up to 0.9	up to 2.5	up to 10
Push Models	N/A	up to 2.5	up to 10
Life	25 million cycles	25 million cycles	25 million cycles
Power (W)	3-30	4-40	7–70
Page			
Pull Models	8-9	10-11	14-15
Push Models	—	12-13	16-17

Dormeyer® Open Frame Solenoids

- Box frame or C frame design
- Pull-in operation standard; push models available
- On/off operation



Model	B16	B17	C5	C8
Dimensions (in.)	0.48 x 0.39 x 0.99	0.59 x 0.51 x 0.79	0.46 x 0.41 x 0.94	0.81 x 0.75 x 1.13
Duty cycle	continuous or intermittent	continuous or intermittent	continuous or intermittent	continuous or intermittent
Stroke (in.)	up to 0.15	up to 0.18	up to 0.2	up to 0.5
Force (lb.)	up to 0.9	up to 1.6	up to 1.2	up to 3.5
Life	50,000-100,000 cycles	50,000-100,000 cycles	50,000-100,000 cycles	50,000-100,000 cycles
Power (W)	1.4-190	1.4-190	3-30	1.4-190
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Magnetic Latching Solenoids

- Tubular, Box frame or C frame design
- Holds load in energized state for prolonged periods without energy consumption

Magnetic Latching solenoids are designed for low duty cycle applications where the solenoid's energized position is needed for an extended period of time. When power is applied to the solenoid, the plunger moves to its energized position. The plunger latches magnetically in this position and remains there, consuming no power, until a negative electrical pulse is applied to allow the plunger to unlatch. The reverse voltage applied is dependent on the load attached to the plunger but must be well below the initial energizing value.

While continuous duty, on/off solenoids tend to develop heat, magnetic latching solenoids do not since now power is consumed in the energized state.

Since magnetic latching solenoids are typically used in low duty cycle applications, they are also perfect candidates for battery operation. These products are therefore cataloged as standard as low as 3 volts.

Typical applications for magnetic latching solenoids include door closers, locks, latches and security devices. Almost any solenoid type can be developed as a magnetic latching version. We offer open frame and tubular varieties as catalog standard products.

Model	STA 1/2 x 1/2	B14-L	B16-L	B17-L	B22-L	C5-L
Dimensions (in.)	0.52 x 0.62	1.02 x 0.79 x 1.45	0.48 x 0.39 x 0.99	0.59 x 0.51 x 1.12	1.47 x 1.31 x 1.61	0.46 x 0.41 x 0.94
Duty cycle	low	low	low	low	low	low
Stroke	0.1	0.6	0.15	0.16	0.3	0.05
Force (lb.)	0.9	12	0.8	2.1	0.2	3
Power (W)	3-30	4.67-46.7	1.5-15	2.4-24	9-91	3-30
Page	22-23	24	25	26	27	28

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Dormeyer® C Frame Size C8 — DC Operation

Part Number: C8 - XXX - M- 36

Select from performance chart below

Specifications

Continuous Duty Cycle	100% at 20°C ambient temperature
Intermittent Duty Cycle	See below
Holding Force	2.24 lbs (9.96 N) at 20°C
Coil Insulation	Class "A": 105°C max. temperature standard. Other temperature classes are available
Coil Termination	3/16" QC
Plunger Weight	0.4 oz. (11.3 g)
Total Weight	1.6 oz. (45.4 g)
Dimensions	See page G45

Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously	∞	19	9	3
Maximum ON Time (sec) for single pulse	∞	286	92	27
Watts (@ 20°C)	3.6	7	14	35
Ampere Turns (@ 20°C)	464	657	929	1470

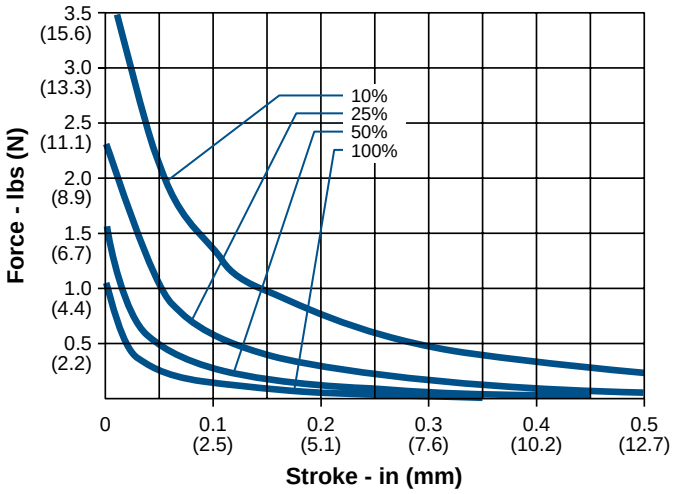
Coil Data

Part Number	Resistance (@20°C)	Ref # Turns	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
C8-276-M-36	2.56	404	3.0	4.2	5.9	9.3
C8-274-M-36	23.2	1252	9.0	12.7	18.0	28.5
C8-273-M-36	9.30	752	6	8.5	12	19
C8-272-M-36	37.12	1581	12	17	24	38
C8-271-M-36	150.73	2736	24	34	48	76
C8-270-M-36	621.54	5544	48	68	96	152
C8-269-M-36	3824	15035	120	164	231	366

NOTES:

1. All data is typical.
2. Force testing is done with the solenoid in the horizontal position.
3. All data reflects operation with no heatsink.
4. Magnetic latching versions available. Pull versions standard; push versions available.
5. Other coil terminations available.
6. All specifications subject to change without notice.

Typical Force @ 20°C



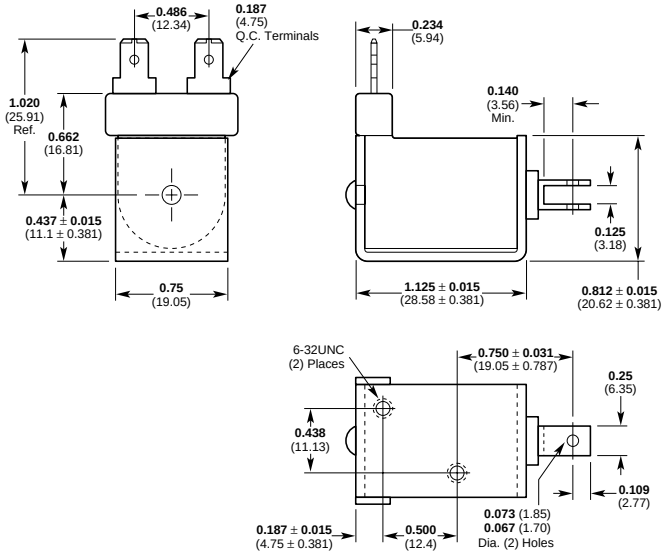
How to Order

Select the part number from the table provided. (For example, to order a 25% duty cycle unit rated at 48 VDC, specify C8-271-M-36.

Please see www.ledex.com (click on Stock Products tab) for our list of stock products available through our North American distributors.

Inches (mm)

Illustrated in energized state



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