



A range of general purpose, monostable, pull action solenoids designed to give a range of force/size ratios. AC and DC types are externally identical but the AC types in Series 41, 42, 43 and 44 are fitted with a copper shading ring to reduce AC vibration noise. The coils are all continuously rated at the stated voltages. The 43 series is suitable for heavy-duty applications and the 42 and 147 series provide high forces over longer strokes. The miniature 44 series offers high force for short stroke applications, where the sub-miniature 133 and 134 series are ideal for discrete small force/stroke applications where space is at a premium. 120-7155, 120-7156 and 120-7157 come complete with an anti-residual "push-off" spring.

Series	Pull force, continuous	Pull force, 25% duty	Closed power, continuous
41, dc	400gf @ 4mm, 100gf @ 8.0mm	900gf @ 16.0mm, 400gf @ 3.0mm	6.5W
41, ac	300gf @ 4mm, 200gf @ 10.0mm	1500gf @ 4.0mm, 700gf @ 10.0mm	10.5W
42, dc	350gf @ 4mm, 150gf @ 8.0mm	1250gf @ 6.0mm, 300gf @ 18.0mm	10W
42, ac	400gf @ 4mm, 200gf @ 18.0mm	1300gf @ 6.0mm, 600gf @ 18.0mm	15W
43, dc	1150gf @ 3mm, 150gf @ 9.0mm	3700gf @ 3.0mm, 1500gf @ 9.0mm	12W
43, ac	1000gf @ 3mm, 200gf @ 15.0mm	3100gf @ 3.0mm, 1700gf @ 15.0mm	20W
44, dc	80gf @ 2.0mm, 25gf @ 6.0mm	230gf @ 2.0mm, 55gf @ 6.0mm	3W
44, ac	110gf @ 2.0mm, 50gf @ 8.0mm	250gf @ 2.0mm, 125gf @ 8.0mm	4.3W

Voltage	Order Code	Price Each				
		1+	10+	20+	50+	+
<b>66 Series</b> 12V dc	<b>968-7947</b>	484.00	394.00	355.00	347.00	--
	<b>968-7955</b>	459.00	376.00	347.00	--	--
<b>67 Series</b> 12V dc	<b>968-7963</b>	411.00	403.00	381.00	345.00	--
	<b>968-7823</b>	752.00	613.00	550.00	546.00	--

Cylindrical Solenoids



R16 x 16 cylindrical solenoid

- Available with 24 volt continuous or intermittent coils
- Robust, enclosed coil design with threaded nose for mounting through bulkhead
- Integral clevis end for pull operation
- Compact, long stroke design
- Threaded mounting nose with anti-rotation feature, locknut and shakeproof washer
- Electroplated body, armature and pole piece for corrosion resistance
- Coil insulation to class B



Supply Voltage	Duty Rating	Maximum Stroke	Holding Force	Magnetic Force at Max. Stroke	Power Consumption	Mfrs. List No.
V dc		mm	N	N	W	
24	Continuous	25	25.3	0.1	5.5	R16X16,24V100%
24	Intermittent	25	35.6	1.2	38	R16X16,24V15%

Force figures:±10%, solenoid HOT condition and heat-sink mounting (6"x6"x.125" steel), rated voltage  
Power consumption figures: 25°C coil temperature

Duty Rating	Order Code	Price Each				
		1+	5+	10+	25+	+
Continuous	<b>116-2567</b>	1,269.00	1,183.00	1,107.00	1,081.00	--
Intermittent	<b>116-2568</b>	1,269.00	1,183.00	1,107.00	1,081.00	--

Tubular Solenoids

Black Knight™ 120, 121 & 122 Series



- 12V DC operated
- Close tolerances
- Reduced noise
- High power
- Reliable, long life

120 Series - Dia = 12.7mm, Length = 26.2mm  
121 Series - Dia = 20.2mm, Length = 39.3mm  
122 Series - Dia = 25.5mm, Length = 39.3mm

Power Continuous (W)	Resistance Coil (Ω)	Stroke (mm)	A		B		Mfrs. List No.
			Force (gf)	Stroke (mm)	Force (gf)	Stroke (mm)	
Pull 4.0	36	1	170	10	10	10	120 420 610 620
Push 4.0	36	1	170	10	10	10	120 420 620 620
Pull 7.0	20.6	1	800	15	50	50	121 420 610 620
Push 7.0	20.6	1	800	15	50	50	121 420 620 620
Pull 10.0	14.4	1	1750	15	150	150	122 420 610 620
Push 10.0	14.4	1	1750	15	150	150	122 420 620 620

Mfrs List No.	Order Code	Price Each				
		1+	25+	100+	+	+
120 420 610 620	<b>420-7415</b>	750.00	614.00	555.00	--	--
120 420 620 620	<b>420-7427</b>	871.00	713.00	645.00	--	--
121 420 610 620	<b>420-7439</b>	1,262.00	1,170.00	--	--	--
121 420 620 620	<b>420-7440</b>	1,303.00	1,066.00	965.00	--	--
122 420 610 620	<b>420-7452</b>	1,635.00	1,337.00	1,211.00	--	--
122 420 620 620	<b>420-7464</b>	1,839.00	1,504.00	1,362.00	--	--

DC Pulse Operated

Pull type - Latching



65 Series H=10, W=22, D=15, Leads=203mm  
66 Series H=14, W=30, D=16, Leads=203mm  
67 Series H=15.5, W=40, D=19, Leads=203mm  
68 Series H=21.5, W=36, D=26, Leads=203mm

A latching or bi-stable solenoid incorporates a set of permanent magnets that allows the solenoid to offer hold force even after the power has been disconnected. The term bi-stable is given to this type of solenoid because it has two stable positions. The first is when the solenoid is de-energised and the plunger is fully extended in the open position. The second position is when the solenoid is energised and the plunger is attracted into its closed position, the power can then be removed and the plunger will be held in place with the permanent magnets. The electrical force moves the solenoid from the open position to the closed position. The closed stable position can be neutralised by applying a reverse polarity across the coil, this neutralises the effects of the permanent magnets and allows the plunger to be withdrawn from the body and back into the open position by means of a spring or other external force.

- No self heating
- Can operate by a pulse signal
- Continues to hold even after the power is disconnected
- A charge / discharge of capacitor will be enough to set and reset

Series	Coil voltage	Coil consumption	Magnet holding force @ 25°C	Mfrs. List No.	Order Code
66	12V dc	3W	0.48kgf	66-120-610-620	968-7947
66	24V dc	3W	0.48kgf	66-120-610-720	968-7955
67	12V dc	5W	1.0kgf	67-120-610-620	968-7963
68	12V dc	10W	2.2kgf	68-120-610-630	968-7823

★ With push-off spring

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Relays & Solenoids

Compliant Non-compliant  
RoHS Limited stock - RoHS replacement available