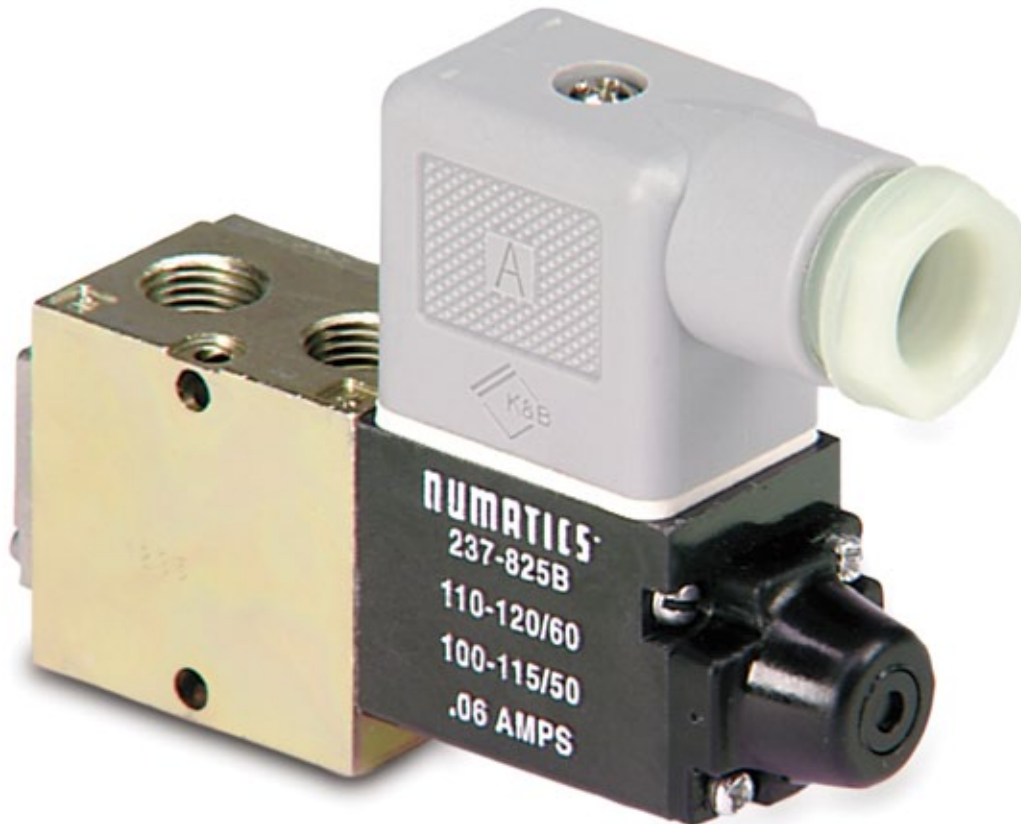


# NUMATICS®

## L01 Series

Direct Solenoid Actuated Valves



[www.numatics.com](http://www.numatics.com)

## L01 Series

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4 Ported, 2 and 3 position, 4-way, Spool & Sleeve

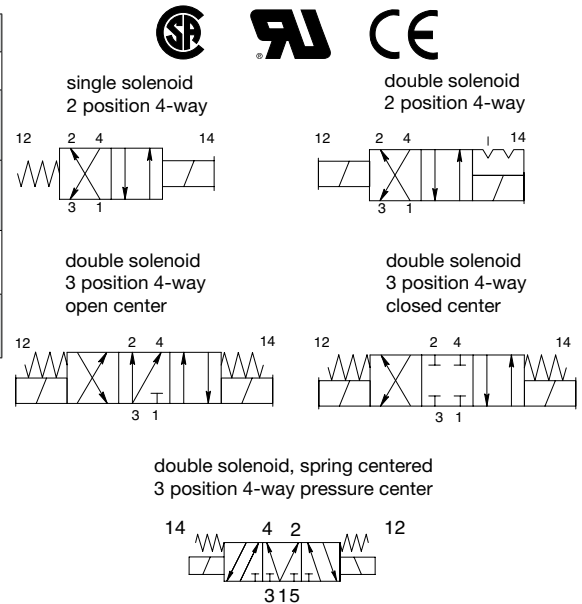
Cv: 0.20

- Direct solenoid actuated
- DIN plug-in solenoid with indicator light
- Unlubricated or lubricated service
- Integral speed control available
- In-line or manifold mounted
- Designed to meet the requirements of NEMA 4 / IP65



## Technical Data

Valve Data	English	Metric
Cv	1/8 = 0.20	1/8 G Tap = 0.20
Flow Capacity	9.3 SCFM	197 NI/m
	Upstream pressure to atmosphere @80 PSIG	@ 6 bar upstream/5 bar downstream
Operating Pressure Range	28"Hg Vacuum to 150 PSIG	Vacuum to 10 bar
Temperature Range (Ambient)	-10°F to + 115°F	-23°C to +46° C



## Operating Data

All Solenoids Are Continuous Duty Rated		12 VDC	24 VDC	24 VAC 50 Hz	24 VAC 60 Hz	115 VAC 50 Hz	120 VAC 60 Hz	230 VAC 50 Hz	240 VAC 60 Hz
Power (Watts)		6.0	6.0	4.0	3.0	5.4	4.1	5.0	5.4
Holding Current (Amps.)		0.500	0.250	0.290	0.023	0.600	0.050	0.024	0.024
Inrush Current (Amps.)		N/A	N/A	0.490	0.045	0.100	0.090	0.041	0.041
Energize in seconds	2-Position, Single, Spring Return	0.012	0.012	0.008	0.008	0.008	0.008	0.008	0.008
	2-Position, Double, Detented	0.012	0.012	0.008	0.008	0.008	0.008	0.008	0.008
	3-Position, Spring Centered	0.012	0.012	0.010	0.010	0.010	0.010	0.010	0.010
De-energize in seconds	2-Position, Single, Spring Return	0.006	0.006	0.010	0.010	0.010	0.010	0.010	0.010
	2-Position, Double, Detented	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3-Position, Spring Centered	0.006	0.006	0.012	0.012	0.012	0.012	0.012	0.012

**How to Order**

**Valves**

**Valve Series & Port Size**

L01 = 1/8

**Valve Type**

SA = Single Direct Solenoid, Spring Return  
W/Flush Non-locking Override

SS = Double Direct Solenoid w/Flush  
Non-locking Override

**Function**

4 = 2 Position, 4-Way  
5 = 3 Position, 4-Way Open Center  
6 = 3 Position, 4-Way Closed Center  
7 = 3 Position, 4-Way Pressure Center

**Mounting**

59 = Line Mounted, Common Exhaust  
87 = 59 w/Speed Control

**L01 SS 4 59 B 0 000 60**

**Voltage**

20 = 24/50-60 VAC  
30 = 110-120/50-60 VAC  
40 = 220-240/50-60 VAC  
60 = 12 VDC  
61 = 24 VDC

**Options**

11B = Flush Locking Override  
11Z = Extended Locking Override  
13A = 48" Leads  
17N = DC Solenoid W/Surge  
Suppression Diode  
18D = Side Ports

**Port Type**

0 = NPTF  
G = G Tap

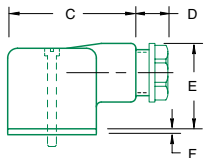
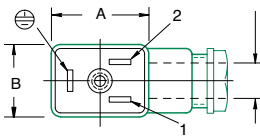
**Wiring Option**

2 = Din Plug-in AC Solenoid  
4 = Din Plug-in DC Solenoid  
O = Hardwired AC  
B = Hardwired DC

NOTE: Plug connector is NOT included with DIN solenoid. Order plug-in connector assembly separately (see ordering information below)

**Plug connector assemblies**

Per DIN Spec. NO 43650. Accepts cable diameter 0.240 to 0.310  
11 mm Industry Standard DIN Form B



Normal Polarity  
1 = (+) Positive, High  
2 = (-) Negative, Neutral  
⊖ = Chassis Ground

Plug Connector Description	Part No.
Grey (14 end solenoid) Plug Assembly	230-363
Black (12 end solenoid) Plug Assembly	230-364
Plug Assembly with 24 V Light	230-365
Plug Assembly with 110 V Light	230-366
Plug Assembly with 220 V Light	230-367

**Dimensions: Inches (mm)**

A	B	C	D	E	F
1.12 (28.4)	0.83 (21.1)	1.57 (39.9)	0.40 (10.2)	1.10 (27.9)	0.06 (1.5)

**Manifold Assembly**

**Electrical/Electronics  
Type & Location**

0 = Standard

**Valve Line**

1 = L01 Series

**Number of Valve Stations**

B = 2 F = 6 J = 10  
C = 3 G = 7 K = 11  
D = 4 H = 8 L = 12  
E = 5 I = 9

**AK 0 1 E 0000 2 N STD**

**Options**

STD = Standard

**Port Type**

N = NPTF  
G = G tap

**End Plate Port Size**

2 = 1/4

**Example order:**

List in order, left to right, facing cylinder ports

Assembly Kit: AK01C00002NSTD

Station 1 LO1SS4872000030

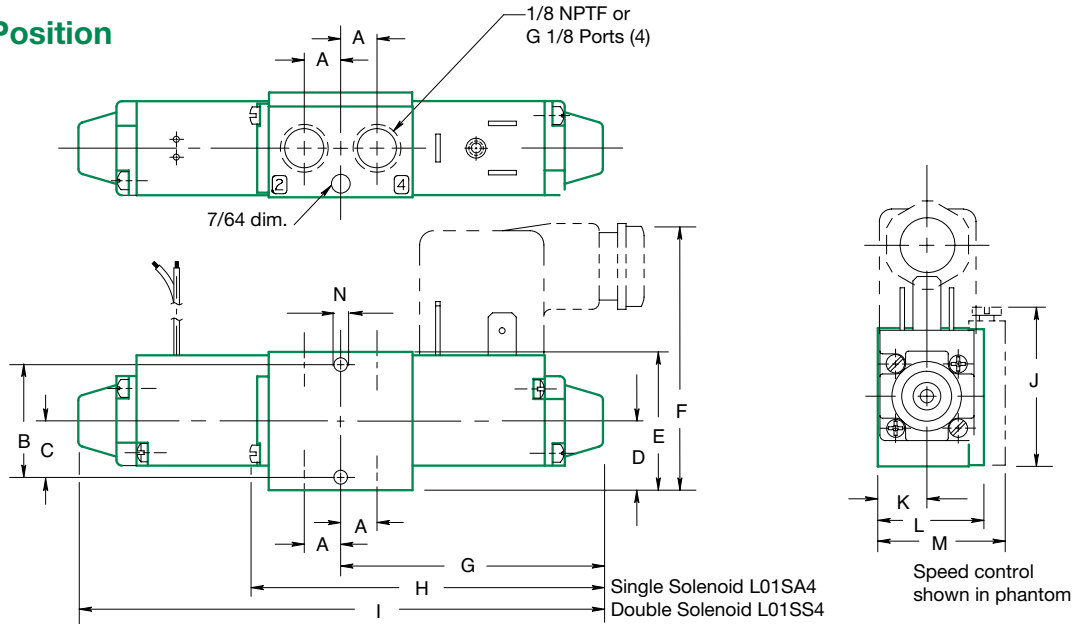
Station 2 LO1SS4592000030

Station 3 LO1SA4592000030

ASSEMBLED

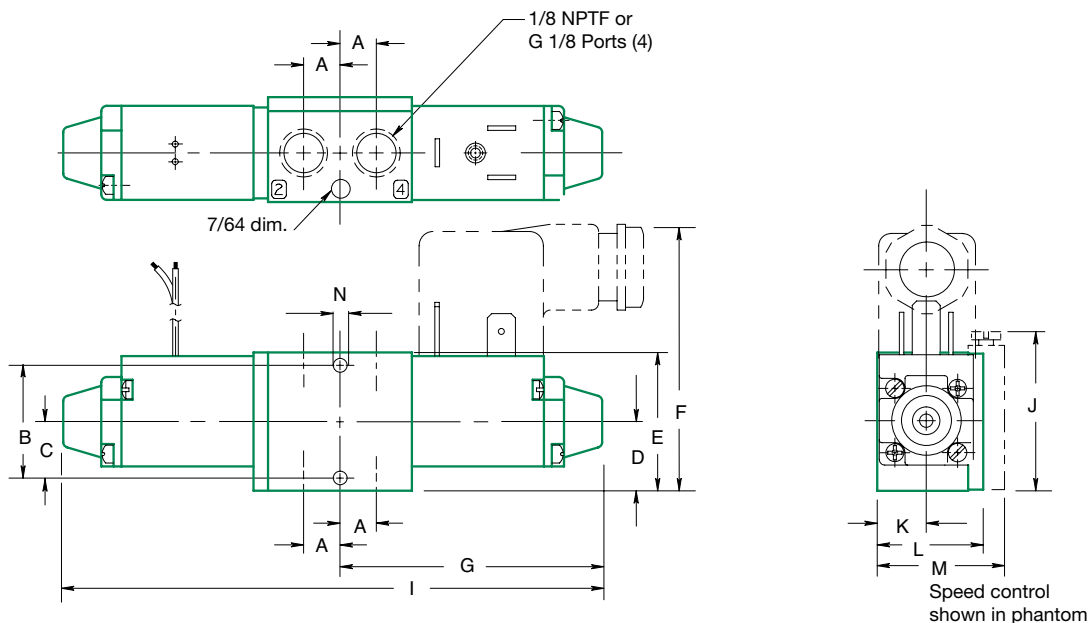
**Dimensions: Inches (mm)**

### Valve 2 Position



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2 position valves	0.31 (7.9)	0.97 (24.6)	0.49 (12.4)	0.59 (15.0)	1.19 (30.2)	2.33 (59.2)	2.30 (58.4)	3.14 (79.8)	4.60 (116.8)	1.35 (34.3)	0.42 (10.7)	0.90 (22.9)	1.08 (27.4)	0.11 (2.8)

### Valve 3 Position

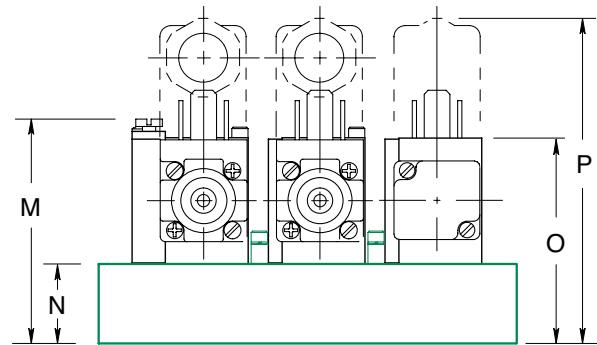
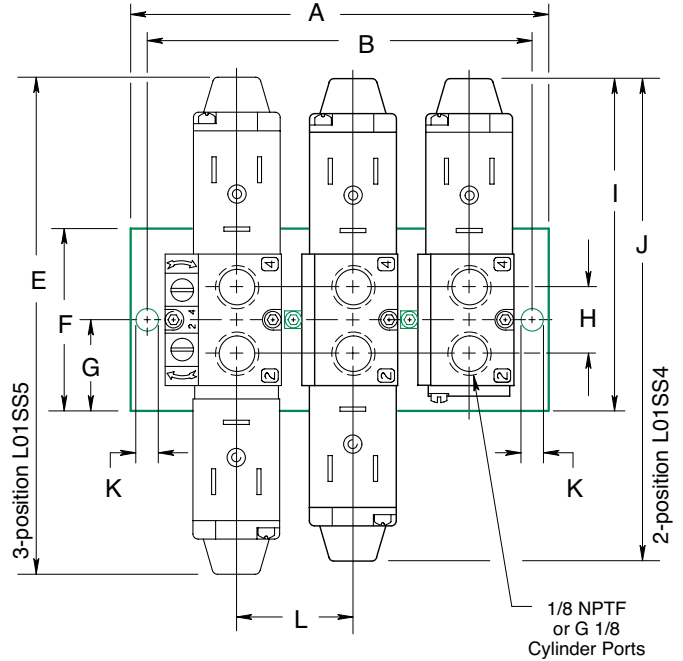
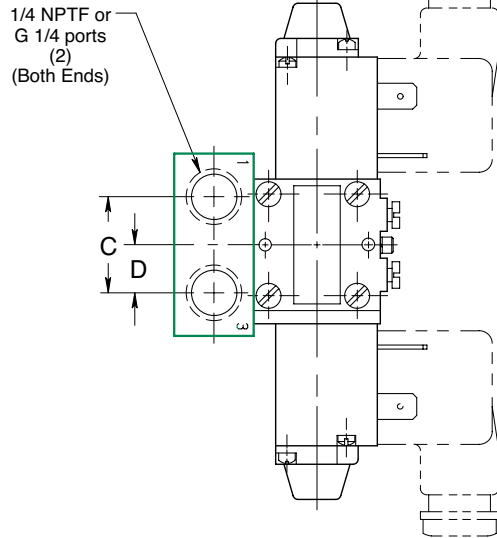


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3 position valves	0.31 (7.9)	0.97 (24.6)	0.49 (12.4)	0.59 (15.0)	1.19 (30.2)	2.33 (59.2)	2.37 (60.2)	3.14 (79.8)	4.86 (123.4)	1.35 (34.3)	0.42 (10.7)	0.90 (22.9)	1.08 (27.4)	0.11 (2.8)

**Dimensions: Inches (mm)**

**Manifold Assembly**

**Common Supply and Exhaust**



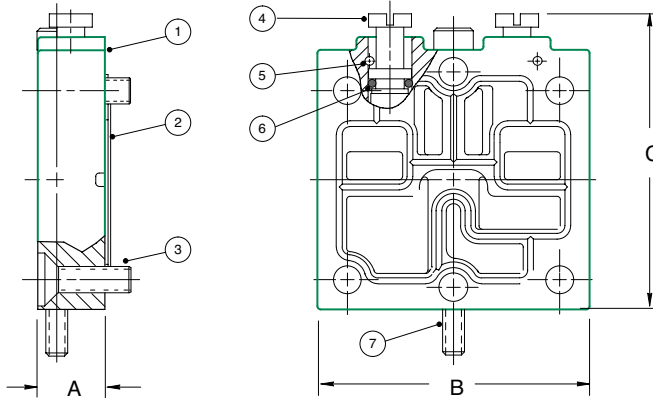
A	B	C	D	E	F	G	H	I	J	K	L
See table below	See table below	0.91 (23.1)	0.45 (11.4)	4.86 (123.9)	1.69 (42.9)	0.84 (21.3)	0.62 (15.7)	3.14 (79.7)	4.60 (116.8)	0.20 (5.1)	1.10 (27.9)

Manifold # Stations	Dim A	Dim B	1/4 NPTF	G 1/4
2 Stations	2.84 (72.1)	2.53 (64.3)	106-822	106-833
3 Stations	3.94 (100)	3.63 (92.2)	106-823	106-834
4 Stations	5.03 (127.7)	4.72 (119.9)	106-824	106-835
5 Stations	6.13 (155.7)	5.82 (147.8)	106-825	106-836
6 Stations	7.23 (183.6)	6.91 (177.5)	106-826	106-837
7 Stations	8.23 (211.3)	8.01 (203.5)	106-827	106-838

Manifold # Stations	Dim A	Dim B	1/4 NPTF	G 1/4
8 Stations	9.42 (239.3)	9.11 (231.4)	106-828	106-839
9 Stations	10.51 (267.0)	10.20 (259.1)	106-829	106-840
10 Stations	11.61 (294.9)	11.30 (287.0)	106-830	106-841
11 Stations	12.71 (322.8)	12.39 (314.7)	106-831	106-842
12 Stations	13.80 (350.5)	13.49 (342.6)	106-832	106-843
Mounting Kit	239-582	Order (1) mounting kit for each station on the manifold. Includes all studs, seals & screws.		

## Speed Control Kit - Side Mounted

239-581



### Parts List

Port Type	Part. No.	Part Name	Part No.
1 *	1	Speed Control Body (not sold separately)	
2 *	1	Gasket	113-414
3 *	4	Screw Assembly	127-671
4 *	2	Metering Screw	118-166
5 *	2	Pin	131-220
6 *	2	O-Ring Seal	126-163
7 *	1	Screw	127-670

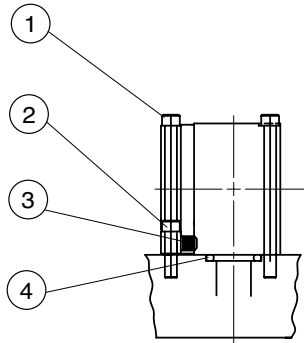
\*Indicates parts included in kit

### Dimensions: Inches (mm)

A	B	C
0.30 (7.6)	1.22 (31.0)	1.35 (34.3)

## Mounting Kit

239-582

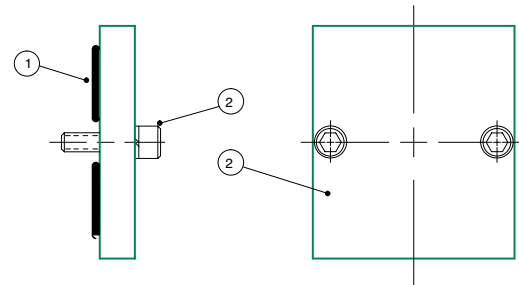


### Parts List

Port Type	Part. No.	Part Name	Part No.
1	2	Screw	127-670
2	1	Screw	127-669
3	1	Mounting Stud	125-560
4	2	O-Ring	126-107

## Blank Station Plate Kit

239-583



### Parts List

Port Type	Part. No.	Part Name	Part No.
1	2	O-Ring Seal	126-106
2	2	Screw	127-669
3	1	Blank Station Plate (not sold separately)	

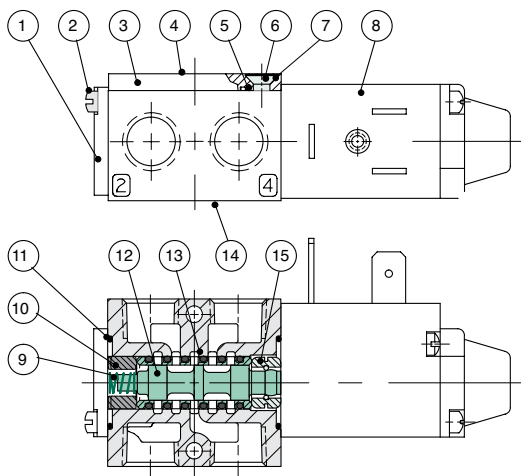
## Solenoid Capsule Assemblies (Flush Non-Locking Override)

Override Type	Valve Function	Wiring Option	12/14 End	Voltage				
				AC		24/50-60	DC	
				100-115/50 110-120/60	200-230/50 220-240/60		12 VDC	24 VDC
Flush non-locking override (standard)	2 Stations	Hardwired	12/14	237-952	237-953	237-954	236-102	236-103
	2 Stations	DIN plug-in	12/14	237-961	237-962	237-963	236-126	236-127
	3 Stations	Hardwired	12 end	237-993	237-992	237-994	236-154	236-155
	3 Stations	Hardwired	14 end	237-990	237-989	237-991	236-108	236-109
	3 Stations	DIN plug-in	12 end	237-1011	237-1010	237-1012	236-166	236-167
	3 Stations	DIN plug-in	14 end	237-1008	237-1007	237-1009	236-132	236-133

Includes solenoid and end cap assembly + screws and gaskets.

**Valve Service Kits and Parts**

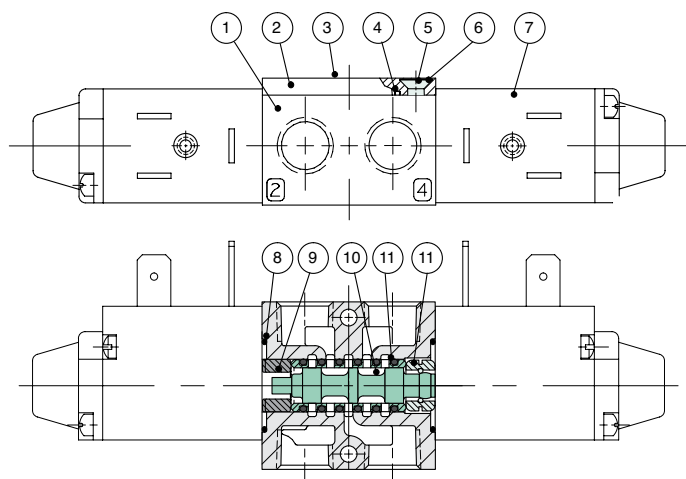
**Kit No. L01-K1\* (For Model L01SA4)**



**Parts List**

Port Type	Part No.	Part Name	Part No.
	1	Spring Cover	104-199
	2	Screw	127-260
	3	Top Plate	105-313
	4	Nameplate	122-571
	5*	Gasket	113-414
	6	Screw	127-604
	7	Lockwasher	128-316
	8	Solenoid Assembly (12/14)	See p. 7
	9*	Spring	115-203
	10*	Bumper	114-130
	11*	O-Ring Seal	126-134
	12	Sleeve Assembly w/Seals	209-278
	13*	Seals	126-133
	14	Valve Body (not sold separately)	
	15*	Detent Body	110-109

**Kit No. L01-K1\* (For Model L01SS4)**



**Parts List**

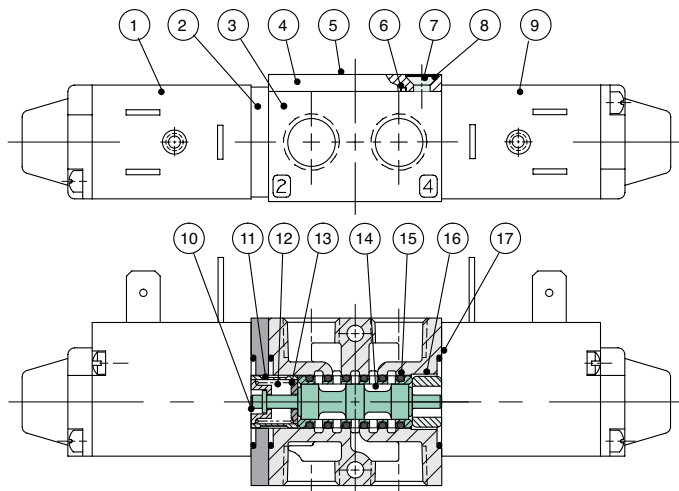
Port Type	Part No.	Part Name	Part No.
	1	Valve Body (not sold separately)	
	2	Top Plate	105-313
	3	Nameplate	122-571
	4*	Gasket	113-414
	5	Screw	127-604
	6	Lockwasher	128-316
	7	Solenoid Assembly (12/14)	See p. 7
	8*	O-Ring Seal	126-134
	9*	Bumper	114-130
	10	Sleeve Assembly w/Seals	209-278
	11*	Seals	126-133
	12*	Detent Assembly	210-111

\*Indicates parts included in service kit. \*\*Spool and sleeve assemblies sold as precision matched set and include (6) #126-133 seals; spools are not interchangeable.



## Valve Service Kits and Parts

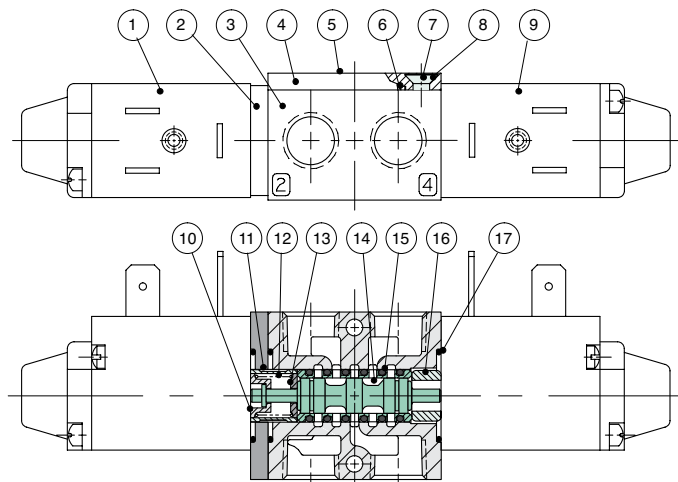
### Kit No. L01-K3\* (For Model L01SS5)



### Parts List

Port Type	Part No.	Part Name	Part No.
1	1	Solenoid Assembly (12 End)	See p. 7
2	1	Adaptor	119-343
3	1	Valve Body (not sold separately)	
4	1	Top Plate	105-313
5	1	Nameplate	122-571
6*	1	Gasket	113-414
7	4	Screw	127-604
8	4	Lockwasher	128-316
9	1	Solenoid Assembly (14 End)	See p. 7
10*	1	Spring Retainer	116-396
11*	1	Spacer	116-397
12*	1	Spring	115-291
13*	1	Spring Retainer	116-395
14	1	Sleeve Assembly w/Seals	**209-373
15*	6	Seals	126-133
16*	1	Bumper	114-171
17*	3	O-Ring Seals	126-134

### Kit No. L01-K3\* (For Model L01SS6)



### Parts List

Port Type	Part No.	Part Name	Part No.
1	1	Solenoid Assembly (12 End)	See p. 7
2	1	Adaptor	119-343
3	1	Valve Body (not sold separately)	
4	1	Top Plate	105-313
5	1	Nameplate	122-571
6*	1	Gasket	113-414
7	4	Screw	127-604
8	4	Lockwasher	128-316
9	1	Solenoid Assembly (14 End)	See p. 7
10*	1	Spring Retainer	116-396
11*	1	Spacer	116-397
12*	1	Spring	115-291
13*	1	Spring Retainer	116-395
14	1	Sleeve Assembly w/Seals	209-374**
15*	6	Seals	126-133
16*	1	Bumper	114-171
17*	3	O-Ring Seals	126-134

\*Indicates parts included in service kit. \*\*Spool and sleeve assemblies sold as precision matched set and include (6) #126-133 seals; spools are not interchangeable.



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