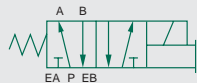


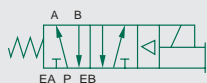


125 Series

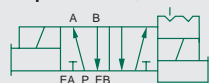
single direct solenoid,
spring return
2 position, 4-way



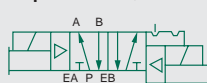
single solenoid air pilot,
spring return
2 position, 4-way



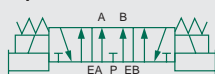
double direct solenoid,
detented
2 position, 4-way



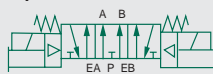
double solenoid air pilot,
detented
2 position, 4-way



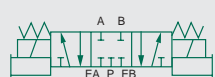
double direct solenoid
3 position, 4-way
open center



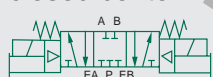
double solenoid air pilot,
3 position, 4-way
open center



double direct solenoid
3 position, 4-way
closed center



double solenoid air pilot,
3 position, 4-way
closed center



5 Ported, 2 and 3 position, 4-way, Spool & Sleeve
Cv: 1.8 - 2.3

- Plug in solenoid with indicator light
- Comply with automotive interchangeable standards
- For lubricated or unlubricated service
- Solenoid air pilot or direct acting
- Low watt 24 VDC coils
- Color identified solenoids for AC or DC
- Surge protecting bridge rectifier in coil standard for DC application



Technical Data

VALVE DATA		ENGLISH			METRIC
Port Size		1/4"	3/8"	1/2"	
Cv		1.8	2.1	2.3	
Flow Capacity	Direct Acting Solenoid Pilot	97 SCFM @ 80 PSIG upstream pressure to atmosphere			2066 NI/m @ 6 bar upstream to 5 bar downstream
Operating Pressure Range	Direct Acting Solenoid Pilot	28" Hg. Vacuum to 150 PSIG			Vacuum to 10 bar
Pilot Pressure Range	Solenoid Pilot	14.5 to 125 PSIG			1 to 8.6 bar
Temperature Range (Ambient)	Direct Acting Solenoid Pilot	-10°F to +115°F			-23°C to +46°C

Operating Data

ALL SOLENOIDS ARE CONTINUOUS DUTY RATED		24 VDC		110-120 VAC / 50/60 Hz.	
Power (Watts)	Direct Acting Solenoid Pilot	6.0	4.0	N/A	N/A
Holding Current (Amps)	Direct Acting Solenoid Pilot	0.25	0.17	0.09	0.06

RESPONSE TIME IN SECONDS		ENERGIZE	DE-ENERGIZE	ENERGIZE	DE-ENERGIZE
2 - Position, Single, Spring Return	Direct Acting	0.038	0.012	0.012	0.012
	Solenoid Pilot	0.014	0.038	0.009	0.040
2 - Position, Double, Detented	Direct Acting	0.012	N/A	0.012	N/A
	Solenoid Pilot	0.014	N/A	0.009	N/A
3 - Position, Spring Centered	Direct Acting	0.012	0.012	0.012	0.012
	Solenoid Pilot	0.014	0.038	0.012	0.040



125 Series

How To Order

Valves

A12 SA 4 00 R 0 000 61

Valve Series & Port Size

- A12 = Automotive 125 1/4" NPTF
- A13 = Automotive 125 3/8" NPTF
- A14 = Automotive 125 1/2" NPTF

Valve Type

- SA = Single Solenoid, Spring Return
- SS = Double Solenoid
- BA = Single Solenoid Air Pilot Spring Return
- BB = Double Solenoid Air Pilot

Function

- 4 = 2-Position, 4-way
- 5 = 3-Position, 4-way open center
- 6 = 3-Position, 4-way closed center

Mounting Means

- 00 = Valve Unit Only, No Mounting
- 15 = Manifold Block, Sides & Bottom Cylinder Ports
- 3A = Base, Side Ports, Individual Exhaust

Volatge

- 30 = 120 VAC
- 61 = 24 VDC

Special Options

- 13S = Right Angle Mini Plug
- 47E = 5-Pin B.H. Micro Conn. Chrysler
- 56Y = 4-Pin Micro Conn. Pin 1-N/02-12, 3C, 4-14
- 60C = 5-Pin Single Key Way Micro Conn. Chrysler
- 61E = 4-Pin Micro Ford
- 62B = 61E plus internal pilot form "P" port

Port Type

- 0 = NPTF (direct acting)
- T = NPTF (air pilot)

Wiring Option

- 8 = Chrysler (DCX) AC with Light 5-Pin Mini Brad Harrison
- 9 = Chrysler (DCX) DC with Light 5-Pin Brad Harrison
- L = Special Wiring, Standard AC
- R = Special Wiring, Standard DC
- S = Ford AC, with Light 5-Pin Mini Brad Harrison Conn.

Regulators

A12 RS 1 15 O 0 000 00

Valve Series & Port Size

- A12 = Automotive 125 1/4 NPTF
- A13 = Automotive 125 3/8 NPTF
- A14 = Automotive 125 1/2 NPTF

Regulator Type

- RS = Single Pressure to "P" Pilot
- RD = Double Pressure to "EA" & "EB" Ports
- RC = Regulator with Non-Relieving Check
- RQ = Regulator with Relieving Checks

Pressure Range

- 1 = 10-130 PSIG
- 3 = 3-30 PSIG
- 4 = 5-60 PSIG

Volatge

- 00 = N/A

Special Options

- 12H = Less Gauge
- 16N = Jumper on "A"
- 16P = Jumper on "B"

Port Type

- 0 = NPTF

Wiring Option

- O = No Receptacle

Mounting Means

- 00 = Regulator Unit Only, No Mounting
- 15 = Manifold Block, Sides & Bottom Cylinder Ports
- 3A = Base, Side Ports

How To Order A Manifold Assembly

A typical five-station assembly may be as follows:

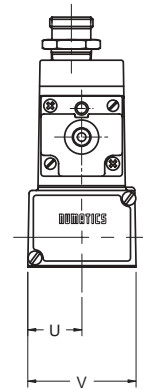
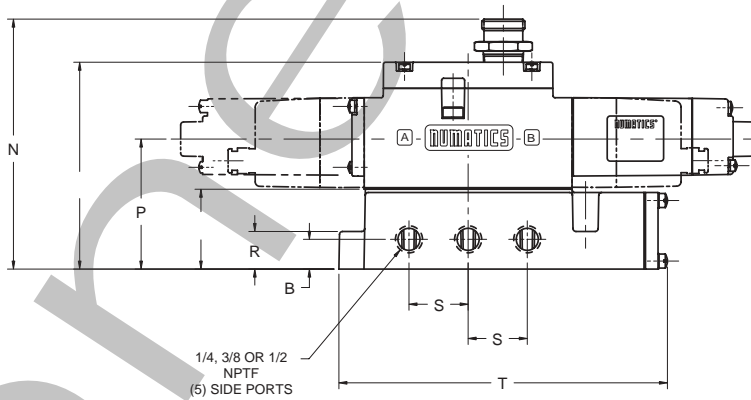
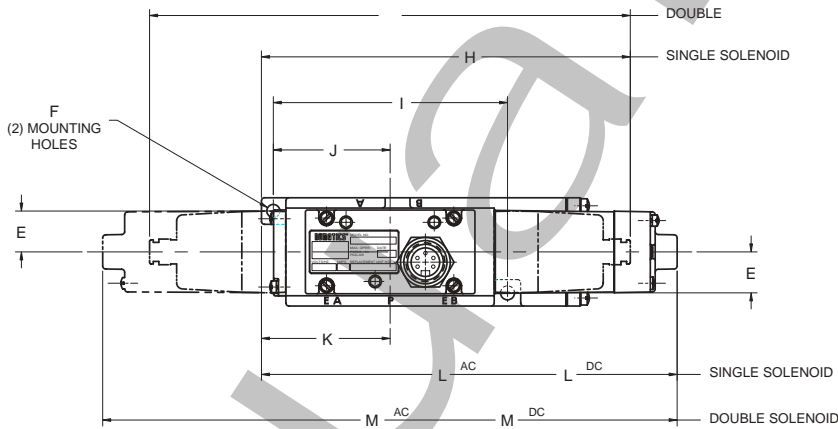
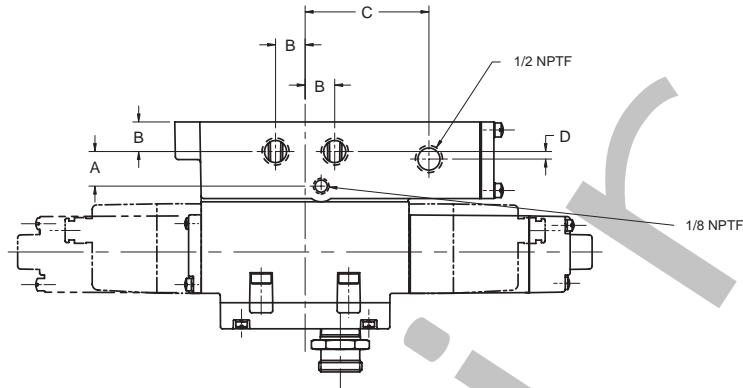
- Assembly Kit AK125-5
- Station 1 A14BA415RT61E61
- Station 2 A14BA415RT61E61
- Station 3 A14BA415RT61E61
- Blocking Plug (Install in P Gallery)
- Station 4 A14BB415RT61E61
- Station 5 A14BB615RT61E61
- ASSEMBLED

NOTE: BA4, BB4, and BB6 valves are internally piloted from Port P. BB5 valves are internally piloted from Port EA unless ordered with 62B special option.



125 Series

Valve and Base Dimensions



Dimensions

top dimensions = inches and bottom dimensions (in parenthesis) = millimeters

A	B	C	D	E	F	G	H	I	J	K	L (AC)	L (DC)	M (AC)
0.69 (17.5)	0.59 (15.0)	2.47 (62.7)	0.15 (3.8)	0.82 (20.8)	0.28 (7.1)	9.59 (243.6)	7.36 (186.9)	4.67 (118.6)	2.33 (59.2)	2.58 (65.6)	7.58 (192.5)	8.31 (211.1)	10.00 (254.0)
M (DC)	N	O	P	Q	R	S	T	U	V				
11.46 (291.0)	4.74 (120.4)	4.12 (104.7)	2.59 (65.7)	1.59 (40.4)	0.75 (19.0)	1.18 (30.0)	6.54 (166.2)	1.08 (27.4)	2.16 (54.9)				

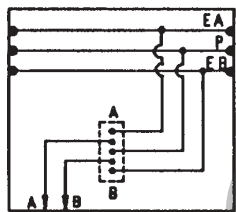
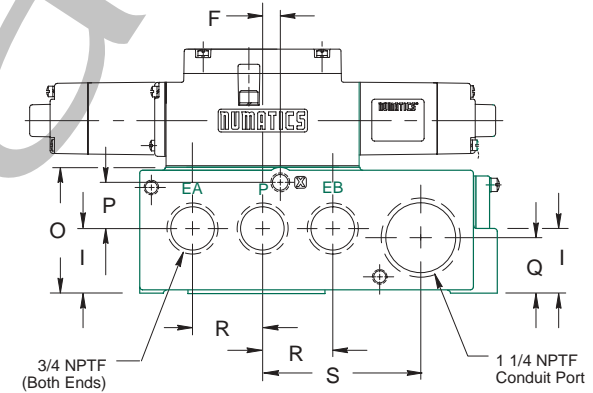
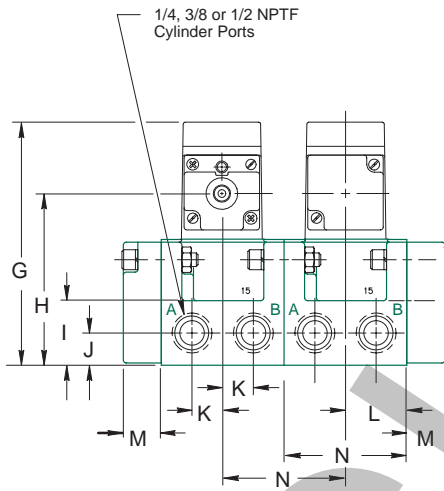
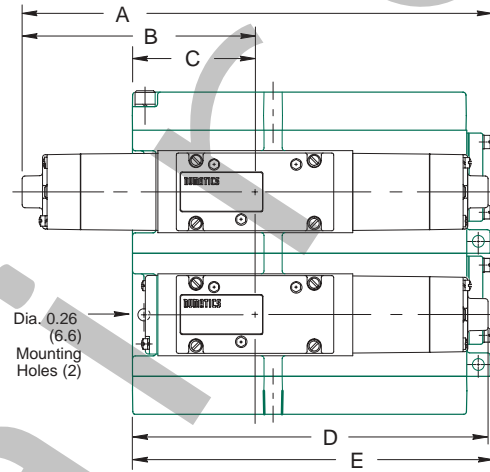


125 Series

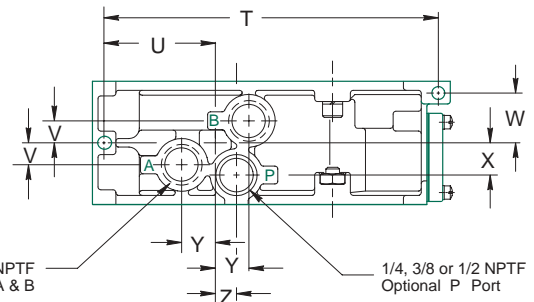
Manifold Dimensions

Manifold Block Kit Numbers

DESCRIPTION	1/4 NPTF	3/8 NPTF	1/2 NPTF
Block without Plug	239-559B	239-560B	239-561B
Block with Plug	239-562B	239-563B	239-564B



Flexiblok Diagram - 15 Block



Top Dimension = Inches
Bottom Dimension (In Parentheses) = Millimeters

Dimensions

top dimensions = inches and bottom dimensions (in parenthesis) = millimeters

A (AC)	A (DC)	B	C	D (AC)	D (DC)	E	F	G	H	I	J	K	L
11.53 (293.0)	10.07 (256.0)	5.00 (127.0)	2.62 (66.5)	7.62 (194.0)	8.35 (212.0)	7.69 (195.0)	0.38 (9.7)	5.22 (133.0)	3.68 (93.5)	1.38 (35.0)	0.69 (17.5)	0.66 (17.0)	1.31 (33.3)
M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0.81 (20.6)	2.62 (66.5)	2.69 (68.3)	0.99 (25.0)	1.19 (30.2)	1.50 (38.0)	3.38 (86.0)	7.13 (181.0)	2.38 (60.4)	0.47 (12.0)	1.06 (27.0)	0.69 (17.5)	0.71 (18.0)	0.45 (11.4)



125 Series

Sandwich Pressure Regulator

Types: RS / RD / RC / RQ

When ordering a valve plus regulator mounted on a base or manifold, list the valve unit only model number and include the mounting requirements only with the regulator. Specify "Assembled."

Example orders: TYPE RS

TYPE RD

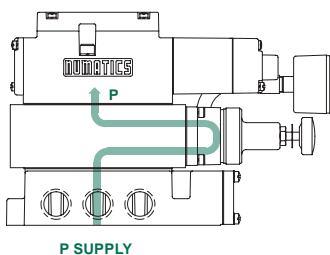
Valve unit only: A12SA400S000030

A12SA400S000030

Regulator A13RS1150000000
ASSEMBLED

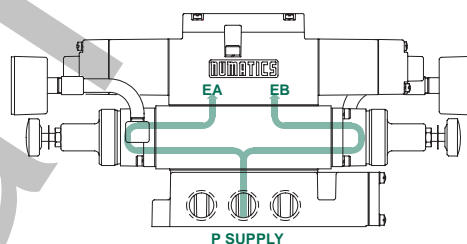
A13RD1150000000
ASSEMBLED

Type RS



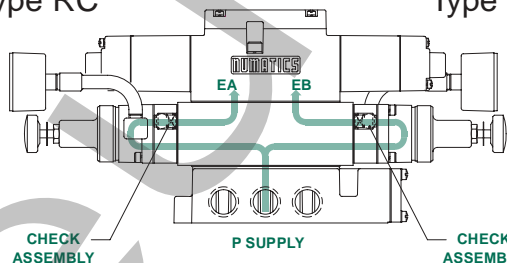
Single pressure from a single supply.

Type RD



Dual pressure from a single supply.

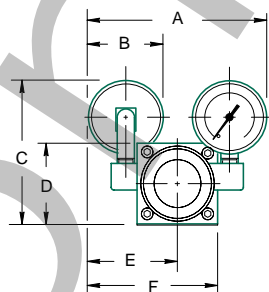
Type RC



Type RC is Non-Relieving: traps downstream pressure if upstream pressure is exhausted.

Type RQ

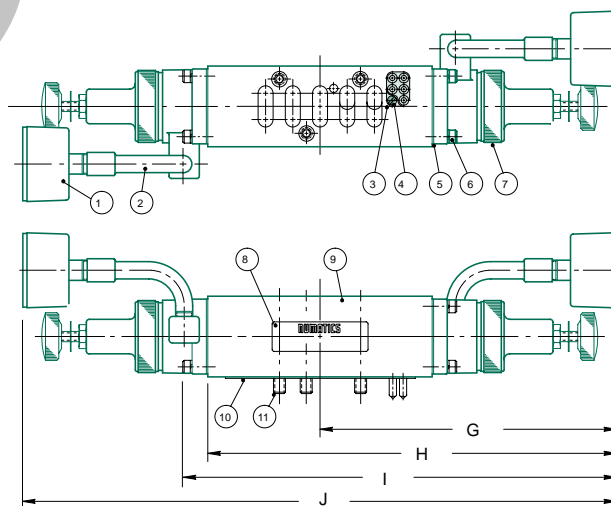
Type RQ is Relieving: exhaust pressure in cylinder if upstream pressure is exhausted.



NOTE: For parts list see the chart on page 20.

Dimensions

top dimensions = inches
bottom dimensions (in parenthesis) = millimeters



A	B	C	D	E	F	G	H	I	J
3.87	1.62	5.72	1.76	1.94	2.80	6.42	8.86	9.26	12.85
(98.0)	(41.2)	(145.3)	(44.7)	(49.3)	(71.1)	(163.1)	(226.0)	(235.2)	(326.4)



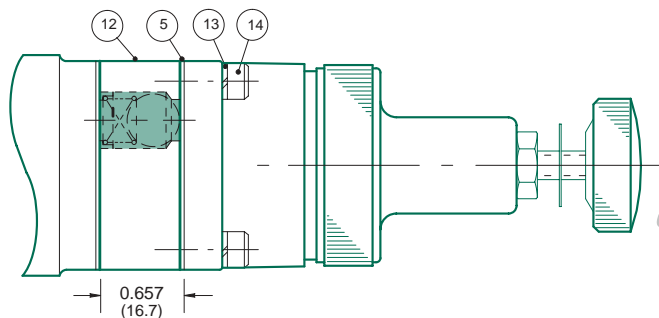
125 Series

Dual Check Assembly Kits

RC: 239-533

(for converting RD into RC and RQ)

RQ: 239-537



Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2*	Gauge	See Chart Below
2	2*	Fitting (90 standard)	134-289
3	1	Plug-In Assembly	230-324
4	1	Screw	127-342
5	**	Gasket (to regulator body)	113-272
6	8~	Screw	127-325
7	2*	Reg. Assembly (not sold separately)	
8	1	Nameplate	122-551
9	1	Regulator Block: RS	125-581
		RD, RC, RQ	125-578
10	1	Gasket body/base	113-417
11	3	Studs†	127-329
12	2	Check Assembly (not sold separately)	
13	2	Hi-Collar Lockwasher (RC, RQ only)	128-144
14	8	Screw (RC, RQ only)	127-227

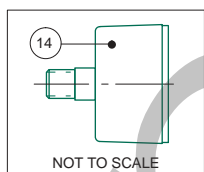
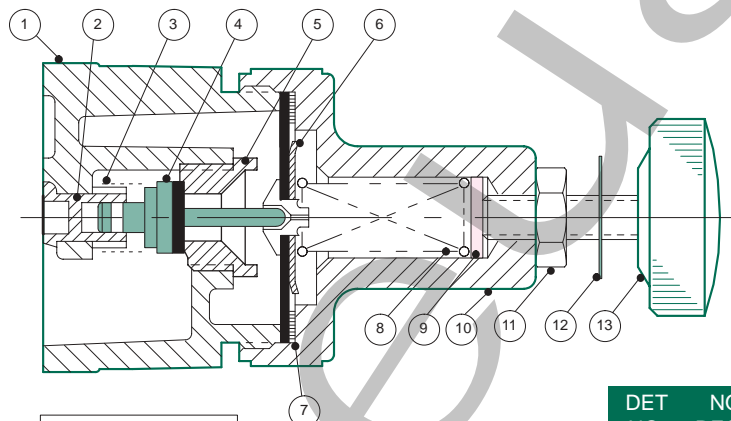
*RS models require (1)

** (1) for RS; (2) for RD; (4) for RC, RQ

~ (4) for RS

† Secure studs to the mounting with a 5/32 hex drive wrench.

Regulator Service Kit



DET. NO.	NO. REQ'D	PART NAME	PRESSURE RANGE PSIG		
			3-30	5-60	10-130
1	1	Regulator Assembly	Not Sold Separately		
2 *	1	Retainer	116-291	116-291	116-291
3 *	1	Spring	115-210	115-210	115-210
4 *	1	Poppet Assembly	221-121	221-121	221-121
5 *	1	Poppet Seat	124-142	124-142	124-142
6 *	1	Diaphragm Assembly	213-285	213-285	213-285
7 *	1	Washer	116-292	116-292	116-292
8	1	Bonnet Spring	115-211	115-212	115-213
9 *	1	Spring Guide	116-293	116-293	116-293
10	1	Bonnet	125-314	125-314	125-314
11	1	Locknut	128-177	128-177	128-177
12	1	Pressure Label	122-508	122-509	122-510
13	1	Knob Assembly	213-284	213-284	213-284
14	1	Regulator Gauges (with PSIG of...)	214-116 (0-60)	214-117 (0-100)	214-103 (0-160)

End Jumper Plate Kit

229-644

For type RD regulators: add options "016N" or "016P" to regulator model number.

Regulator Unit Kits

(includes regulator assembly, gaskets, screws)

229-641

229-642

229-643

*Indicates all parts included in regulator service kit.



125 Series

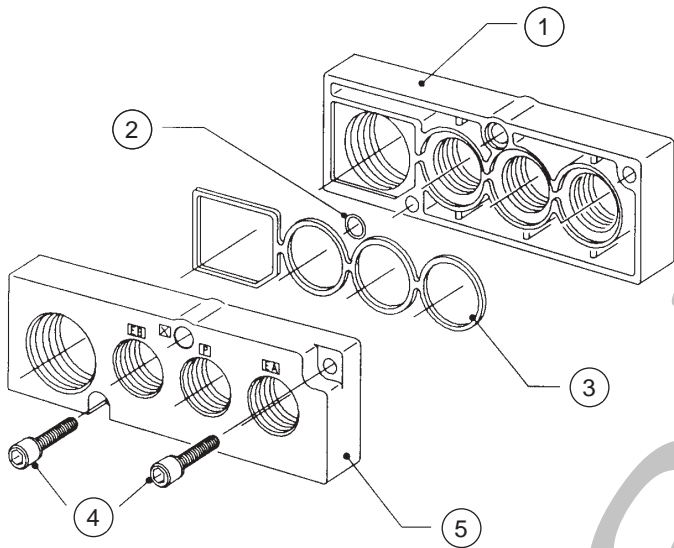


End Plate Kit

239-565

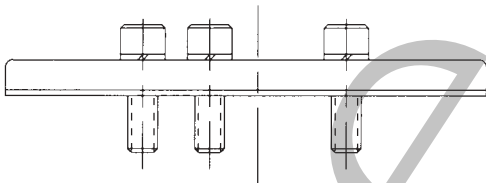
Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Right End PLate	104-479
2	1	O-Ring	126-107
3	1	Gasket	113-298
4	2	Screw Assembly	127-222
5	1	Left End Plate	104-478



Blank Station Plate Kit

239-576



Blocking Disc

124-160

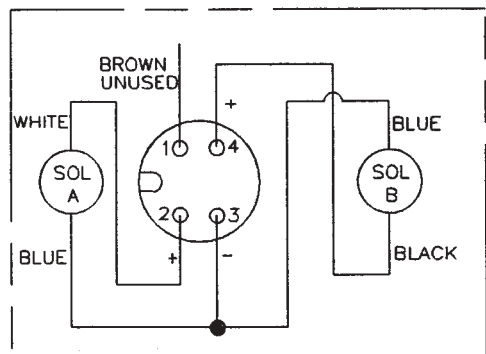
Used for blocking any gallery in the 125 FlexiBlok system.



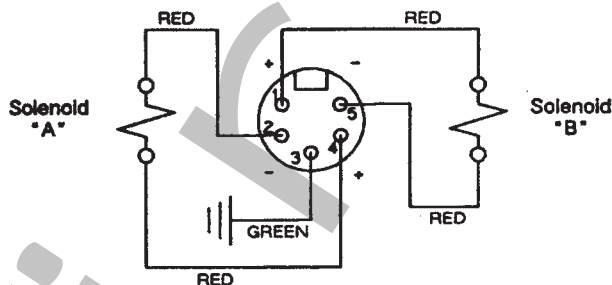


125 Series

Wiring Diagram for Option 61E & 62B



Wiring Diagram for Option S & V (Ford)

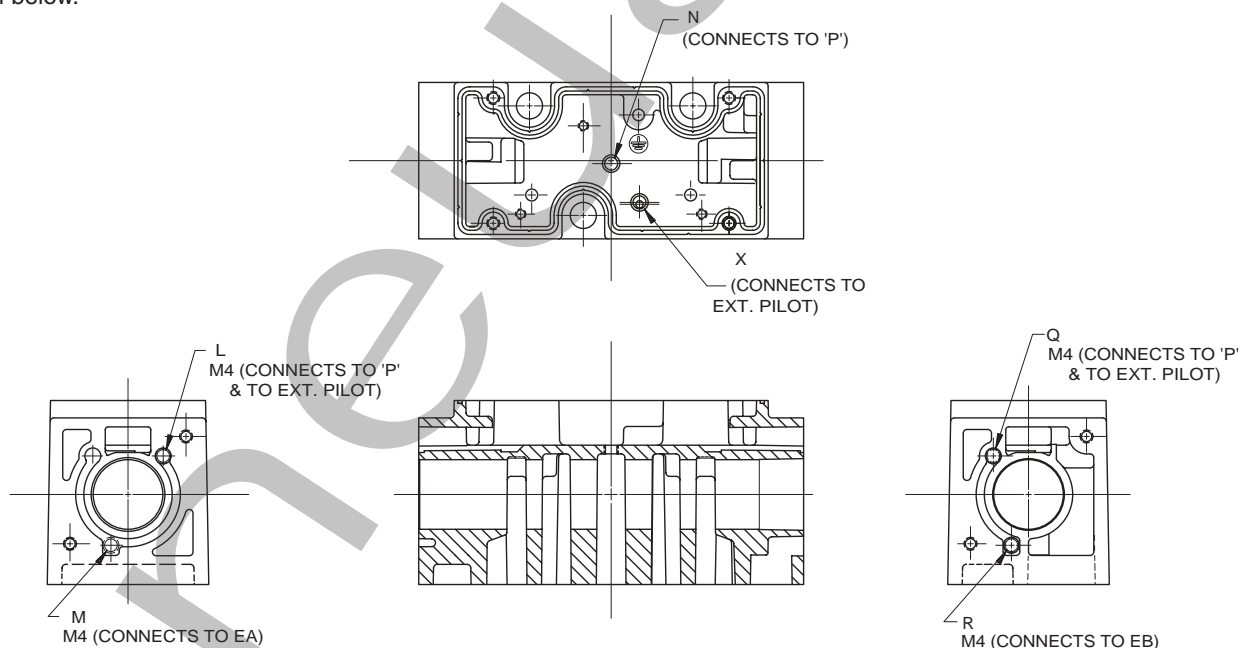


Pilot Port Plugging Arrangements For SPA 125 Series

The Numatics valve bodies used for the 125 Series have a number of pilot passages. Simply by opening or plugging certain passages, a number of different pilot supply options are available.

A cross section of the valve body and both end views are shown below.

These views show the location of all passages. The letters do not appear on the casting. They are used only to identify the ports and the locations on the valve body. Pilot ports X and N use a nylon plug assembly while ports L, M, Q, and R all take a screw set, part # 127-691.



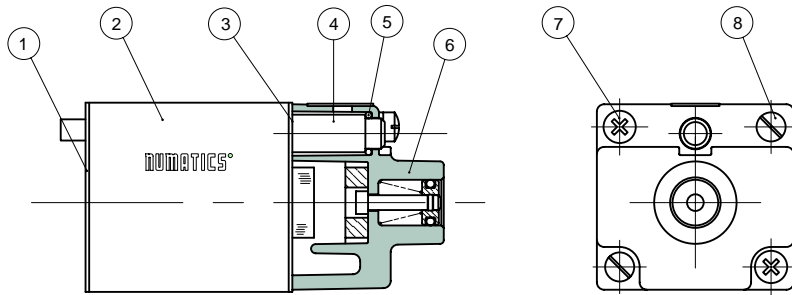
PILOT PORT	INTERNAL FROM PORT "P"		INTERNAL FROM PORT "EA"		INTERNAL FROM PORT "EB"		INTERNAL FROM PORT "X"	
	SINGLE SOLENOID-PILOT	DOUBLE SOLENOID-PILOT	SINGLE SOLENOID-PILOT	DOUBLE SOLENOID-PILOT	SINGLE SOLENOID-PILOT	DOUBLE SOLENOID-PILOT	SINGLE SOLENOID-PILOT	DOUBLE SOLENOID-PILOT
L	Plug	Open		Open	Plug	Open	Plug	Open
M	Plug	Plug		Open	Plug	Plug	Plug	Plug
N	Open	Open	NOT AVAILABLE	Plug	Plug	Plug	Plug	Plug
X	Plug	Plug		Plug	Plug	Plug	Open	Open
Q	Open	Open		Open	Plug	Open	Open	Open
R	Plug	Plug		Plug	Open	Open	Plug	Plug



125 Series



Solenoid Capsule Assembly

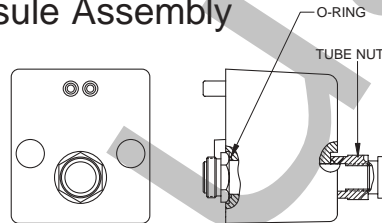


DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Gasket	113-268
2	1	Solenoid Assembly	See Chart Below
3	1	Gasket	113-267
4	1	Light Assembly	See Chart Below
5	1	O-Ring Seal	126-144
6	1	End Cap Assembly	204-602
7	2	End Cap Screws	127-297
8	2	Solenoid Screw AC Solenoid Screw DC	127-298 127-302
9	1	Bumper	Blk. 2 Position 114-134 Red 3 Position 114-133

	VALVE FUNCTION	PLUG-IN STYLE	VOLTAGE					
			100-115/50 110-120/60	AC 200-230/50 220-240/60	24/50-60	DC 12 VDC	24 VDC	
Solenoid Capsule Assembly	Includes End Cap, Solenoid, Screws and Gaskets	2 position	Std. w/Light	237-325	237-326	237-426	226-800	226-801
		3 position	Std. w/Light	237-331	237-332	237-425	226-804	226-805
Solenoid Assembly	* Solenoids Only		Std. Plug-in	228-702	228-707	228-692	225-371	225-372
	Light Only			230-235	230-236	230-284	230-283	230-284

*End cap, screws and gaskets not included

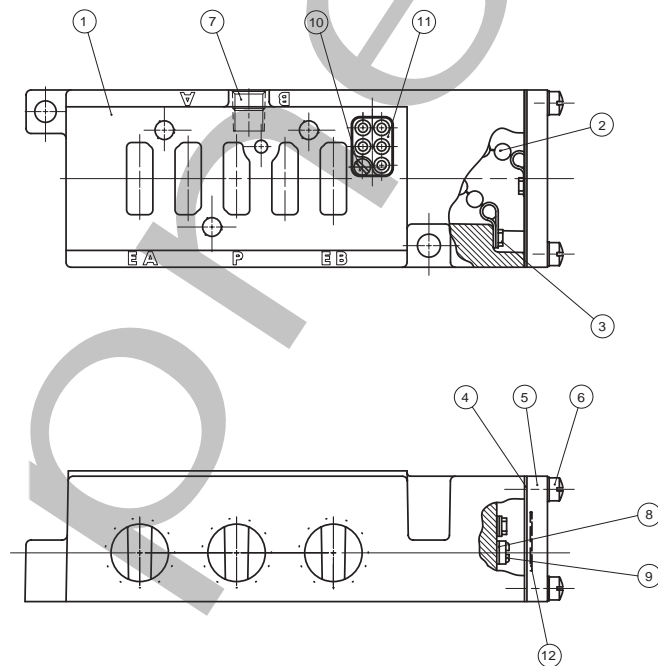
Solenoid - Pilot Capsule Assembly



VOLTAGE	PART NUMBER
24 VDC	236-384
120/60 VDC	237-1045

Includes core tube plunger and solenoid diffusion nut.

Base Assembly Kit



Base Assemblies, Side Ports

PORT SIZE	PART NUMBER
1/4 NPTF	203-793
3/8 NPTF	203-795
1/2 NPTF	203-797

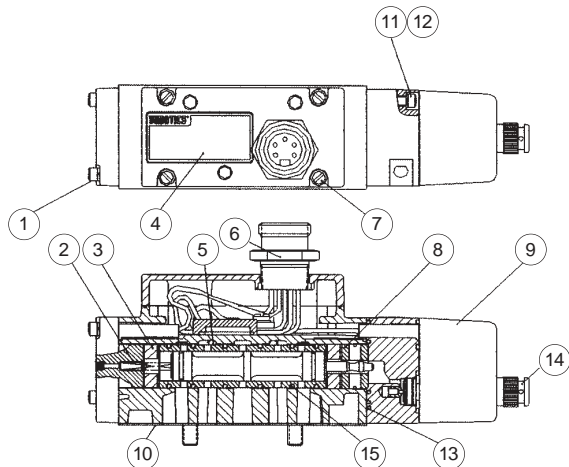
DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Base 1/4 NPTF Base 3/8 NPTF Base 1/2 NPTF	103-699 103-700 103-701
2	1	Cover Chain	125-185
3	2	Screw	127-180
4	1	Gasket	113-265
5	1	Conduit Cover	105-240
6	2	Screw Assembly	127-296
7	1	Pipe Plug	129-100
8	1	Washer	128-162
9	1	Screw	127-176
10	1	Screw	127-342
11	1	Receptacle Assembly	230-615
12	1	Label	122-355



125 Series

Service Kits and Parts

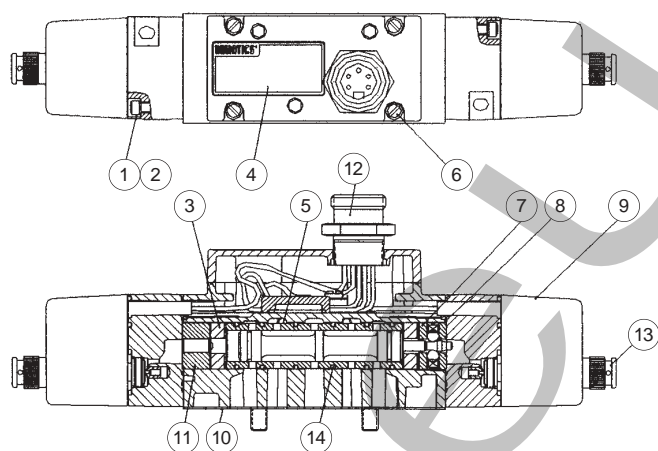
Kit No. A12SPA-K1 (For Models A12, A13, A14, BA4)



DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Screw Assembly	127-320
2	1	Spring	115-248
3	2	Bumper	114-170
4	1	Nameplate	122-945
5	1	Sleeve Assembly w/seals	209-505
6	1	Connector 5 Pin AC	230-533
6		Connector 4 Pin DC	230-972
7	4	Screw Assembly	127-296
8	1	Detented Body	110-113
9	1	Pilot Assembly DC Blue	See p. 23
*9	1	Pilot Assembly AC Black	See p. 23
10	1	Gasket	113-417
11	2	Screw	127-606
12	2	Lockwasher	128-116
13	2	Gasket	113-495
14	1	Diffusion Nut	128-317
15	6	O-Ring	126-204

* Includes core tube, plunger, solenoid diffusion nut

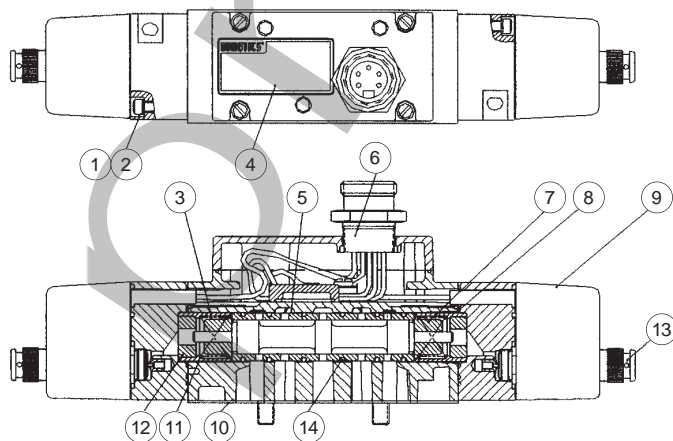
Kit No. A12SPA-K2 (For Models A12, A13, A14, BB4)



DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	4	Soc. HD. Cap Screw	127-606
2	4	Hi-Collar Lockwasher	128-116
3	2	Bumper	114-170
4	1	Nameplate	122-945
5	1	Sleeve Assembly w/seals	209-505
6	4	Screw Assembly	127-296
7	1	Detent Assembly	210-116
8	2	Gasket	113-495
*9	2	Pilot Assembly DC Blue	See p. 23
*9	2	Pilot Assembly AC Black	See p. 23
10	1	Gasket	113-417
11	1	Spacer	116-420
12	1	Connector4 Pin DC	230-972
13	1	Connector 5 Pin AC	230-533
13	2	Diffusion Nut	128-317
14	6	O-Ring	126-204

* Includes core tube, plunger, solenoid diffusion nut

Kit No. A12SPA-K3 (For Models A12, A13, A14, BB5, BB6)



DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	4	Soc. HD. Cap Screw	127-606
2	4	Hi-Collar Lockwasher	128-116
3	2	Spring	115-289
4	1	Nameplate	122-945
5	1	Sleeve Assembly Open	209-524
5	1	Sleeve Assembly Blocked	209-525
6	1	Connector 5 Pin DC	230-533
6	1	Connector 4 Pin DC	230-972
7	2	Spring Retainer	116-391
8	2	Gasket	113-495
*9	2	Pilot Assembly DC Blue	See p. 23
*9	2	Pilot Assembly AC Black	See p. 23
10	1	Gasket	113-417
11	2	Spacer	116-482
12	2	Bumper	114-146
13	2	Diffusion Nut	128-317
14	6	O-Ring	126-204

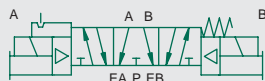
* Includes core tube, plunger, solenoid diffusion nut



125 Series

Special 125 - 3 Position

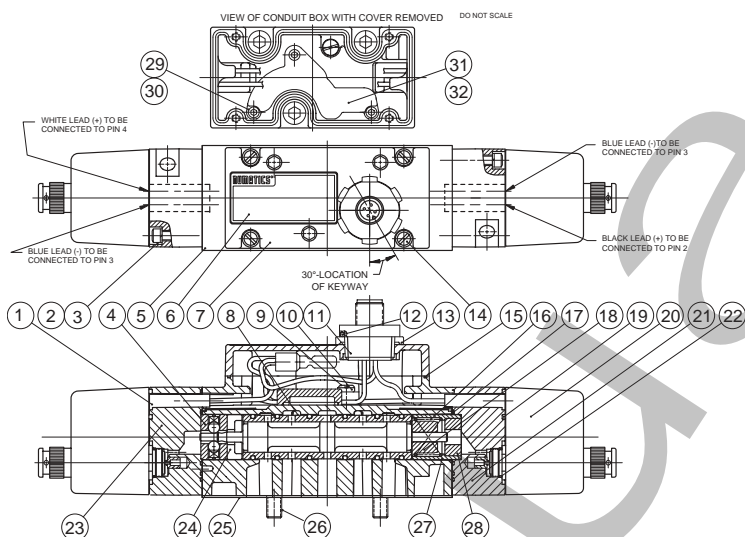
solenoid air pilot
3 position, open center
spring center "B" end
detented on "A" end



DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Receptacle Housing	125-309
2	4	Soc. Hd. Cap Screw	127-606
3	4	Hi-Collar Lockwasher	128-116
4	1	Detent Assembly	210-116
5	1	Body	101-622
6	1	Nameplate	122-945
7	1	Conduit Cover	105-315
8	1	Sleeve Assembly w/Seals	209-612
9	1	Screw	127-176
10	1	Terminal Washer	128-162
11	1	Connector Assembly	230-972
12	1	O-Ring Seal	126-206
13	1	Locknut	128-342
14	4	Screw Assembly	127-296
15	1	Gasket	113-418
16	1	Spring	115-289
17	2	Gasket	113-495
18	1	Spring Retainer	116-391
19	2	O-Ring Seal	126-204
20	2	Pilot Assembly	236-384
21	1	Pilot Adaptor Assembly	219-325
22	2	O-Ring	126-133
23	1	Pilot Adaptor Assembly	219-278
24	1	Spacer	116-523
25	1	Gasket	113-417
26	3	Screw Assembly	127-120
27	1	Spacer	116-482
28	1	Bumper	114-146
29	3	Lockwasher	128-186
30	3	Screw	127-778
31	1	Gasket	113-462
32	1	Circuit Plate	119-452
33	2	Screw	127-691
34	1	Blocking Disc Assembly	213-496

125 Series

92271U-DC



Technical Data

VALVE DATA		ENGLISH	METRIC
Cv	Direct Acting Solenoid Pilot	1.8 - 2.3	
Flow Capacity	Direct Acting Solenoid Pilot	97 SCFM @ 80 PSIG upstream pressure to atmosphere	2066 Ni/m @ 6 bar upstream to 5 bar downstream
Operating Pressure Range	Direct Acting Solenoid Pilot	28" Hg. Vacuum to 150 PSIG	Vacuum to 10 bar
Pilot Pressure Range	Solenoid Pilot	14.5 to 125 PSIG	1 to 8.6 bar
Temperature Range (Ambient)	Direct Acting Solenoid Pilot	-10°F to +115°F	-23°C to +46°C

Operating Data

ALL SOLENOIDS ARE CONTINUOUS DUTY RATED		24 VDC	110-120 VAC / 50/60 Hz.
Power (Watts)	Direct Acting Solenoid Pilot	6 4	N/A N/A
Holding Current (Amps)	Direct Acting Solenoid Pilot	0.25 0.17	0.09 0.06

RESPONSE TIME IN SECONDS		ENERGIZE	DE-ENERGIZE	ENERGIZE	DE-ENERGIZE
2 - Position, Single, Spring Return	Direct Acting	0.038	0.012	0.012	0.012
	Solenoid Pilot	0.014	0.038	0.009	0.040
2 - Position, Double, Detented	Direct Acting	0.012	N/A	0.012	N/A
	Solenoid Pilot	0.014	N/A	0.009	N/A
3 - Position, Spring Centered	Direct Acting	0.012	0.012	0.012	0.012
	Solenoid Pilot	0.014	0.038	0.012	0.040