

valves

# 2004 Series

Solenoid Pilot Actuated Valves

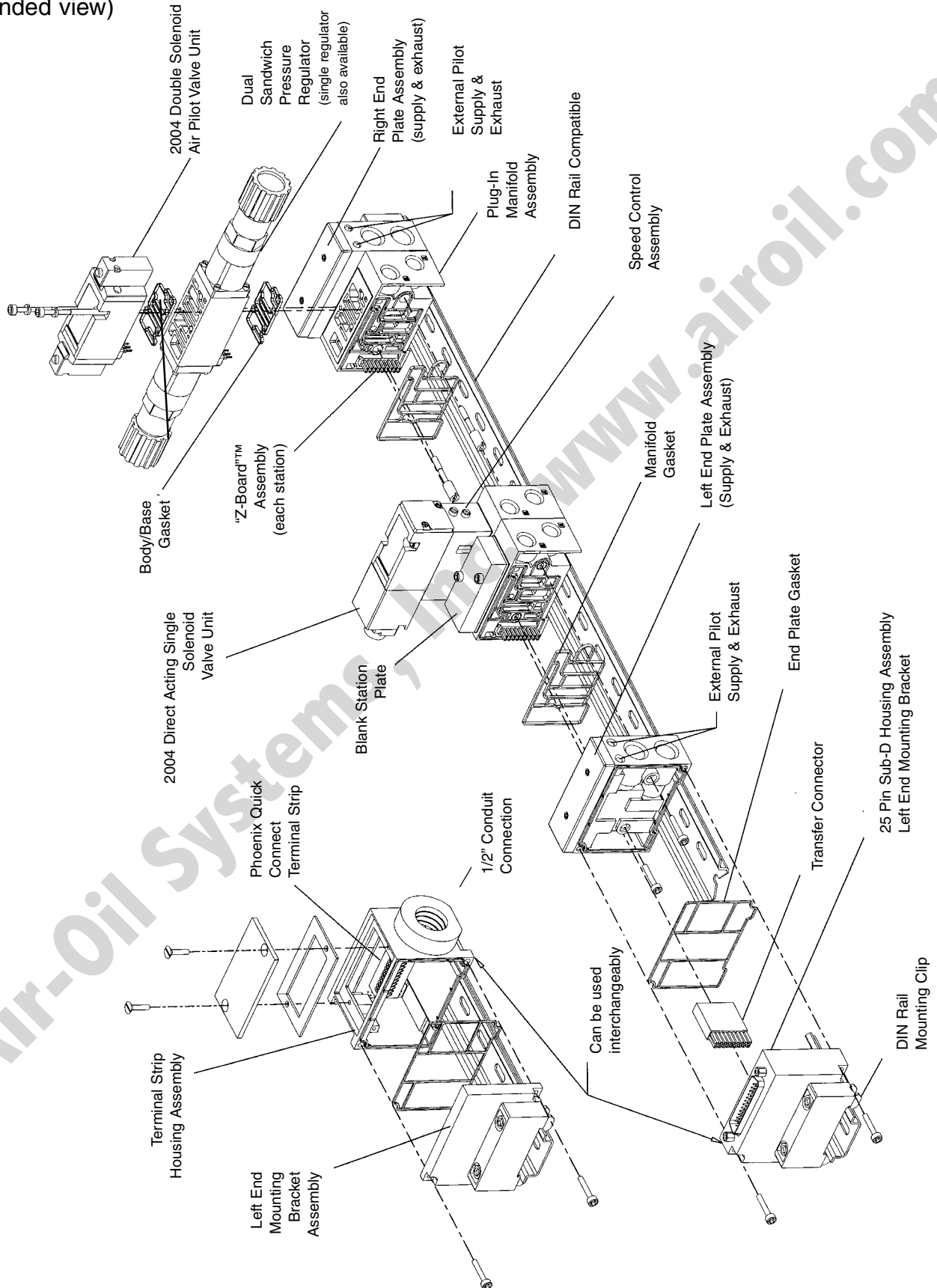


# numatics®

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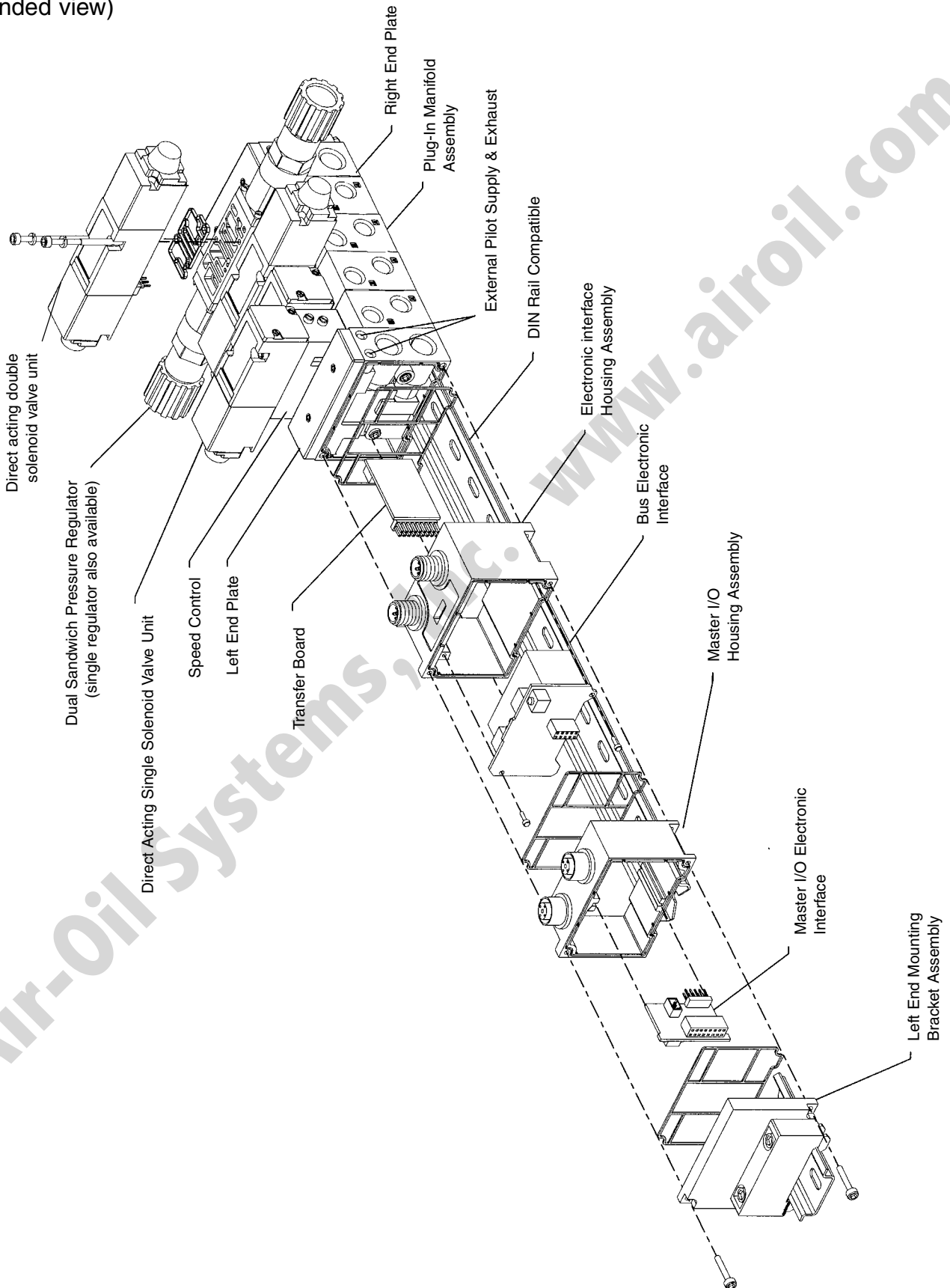


### 25 Pin Sub-D and Terminal Strip Options (expanded view)



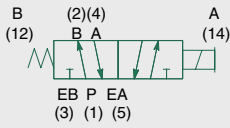


### Electronic Interface and I/O Module options (expanded view)

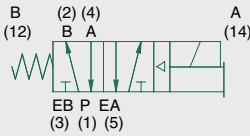




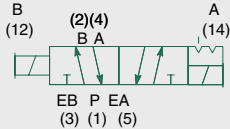
single solenoid  
2 position 4-way



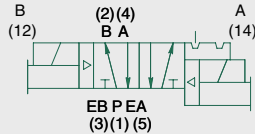
single solenoid air pilot  
2 position 4-way



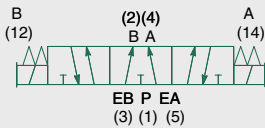
double solenoid  
2 position 4-way



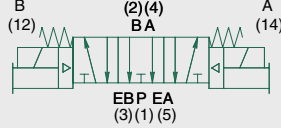
double solenoid air pilot  
2 position 4-way



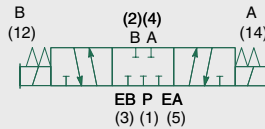
double solenoid  
3 position 4-way  
open center



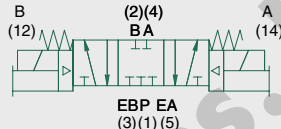
double solenoid air pilot  
3 position 4 way  
open center



double solenoid  
3 position 4-way  
closed center



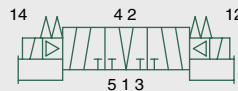
double solenoid air pilot  
3 position 4-way  
closed center



- All internal wiring eliminated
- True plug together flexibility/expendability
- Designed to meet NEMA 4 specifications
- Compact plug together bus interface module
- 25 pin sub-D connector option
- Terminal strip option (Phoenix style)
- Plug together modular Inputs/Outputs
- Plug-in speed control sandwich with adjustments on one side
- Plug-in single and dual pressure regulators



double solenoid pilot  
3 Position 4-Way (5/3),  
open to 4 (A) and  
2 (B) in center



double solenoid  
3 Position 4-Way (5/3),  
open to 4 (A) and  
2 (B) in center



### Technical Data

VALVE DATA	NPTF		G TAP	
	DIRECT	SOLENOID AIR PILOT	DIRECT	SOLENOID AIR PILOT
Cv	0.35	0.40	0.25	0.40
Flow Capacity	16 SCFM	18 SCFM	345 NI/m	394 NI/m
Operating Pressure Range	28" Hg. to 150 PSIG		Vacuum to 10 bar	
Pilot Pressure Range	20 to 115 PSIG		2.5 to 8 bar	
Temperature Range (Ambient)	-10°F to +115°F ambient		-23°C to +46°C	

### Operating Data

ALL SOLENOIDS ARE CONTINUOUS DUTY RATED	24 VDC				DIRECT ONLY	
	DIRECT	SOLENOID PILOT	115 VAC/50Hz	120VAC/60Hz		
Power (Watts)	6.0W	0.5W	5.4	4.1		
Holding Current (Amps)	0.25	0.02	0.063	0.052		
Inrush Current (Amps)	N/A	N/A	0.093	0.090		
RESPONSE TIME IN SECONDS	ENERGIZE		DE-ENERGIZE		ENERGIZE	DE-ENERGIZE
	DIRECT	SOL. PILOT	DIRECT	SOL. PILOT		
2 - Position, Single, Spring Return	0.012	0.014	0.008	0.028	0.008	0.012
2 - Position, Double, Detented	0.012	0.014	N/A	N/A	0.008	N/A
3 - Position, Spring Centered	0.012	0.014	0.008	0.028	0.008	0.012



### How to Order

**041 BA 4 Z1 M P 000 61**

**Valve Series & Port Size**

- 041 = 1/8
- 042 = 1/4
- 04D = 4 mm (5/32)
- 04F = 6 mm

**Valve Type**

- BA = Solenoid Pilot w/Flush Non-locking Override
- BB = Double Solenoid Pilot w/Flush Non-locking Override
- SA = Solenoid, w/Flush Non-locking Override
- SS = Double Solenoid w/Flush Non-locking Override

**Function**

- 4 = 2 Position, 2-Way
- 5 = 3 Position, 4-Way Open Center
- 6 = 3 Position, 4-Way Blocked Center
- 7 = 3 Position 4-Way (5/3), Open to 4 (A) and 2 (B) in Center

**Mounting**

- Z1 = Side and Bottom Ports, Single Solenoid Z-Board
- Z2 = Side and Bottom Ports, Double Solenoid Z-Board
- Z3 = Side Ports only, Single Solenoid Z-Board
- Z4 = Side Ports only, Double Solenoid Z-Board
- Z5 = Z1 with Speed Control
- Z6 = Z2 with Speed Control
- Z7 = Z3 with Speed Control
- Z8 = Z4 with Speed Control

**Voltage**

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

**Options**

- 000 = Standard
- 11B = Flush Locking Override
- 14X = External Pilot

**Port Type**

- G = G Tap (AC)
- K = Push-in Fitting
- N = NPTF (AC)
- P = NPTF or Valve Unit Only (DC)
- Q = G Tap (DC)
- 0 = Valve Unit Only (AC)

**Wiring Option**

- K = Plug-in AC w/Light
- M = Plug-in DC w/Light

**041 RS 3 Z1 J N 000 00**

**Valve Series & Port Size**

- 041 = 1/8
- 042 = 1/4
- 04D = 4 mm (5/32)
- 04F = 6 mm

**Regulator Type**

- RS = Single Pressure to Port P (1)
- RD = Dual Pressure to Ports EB (3) & EA (5)

**Pressure Range**

- 3 = 3-30 PSIG Regulator
- 7 = 0-100 PSIG Regulator

**Mounting**

- Z1 = Side and Bottom Ports, Single Solenoid Z-Board
- Z2 = Side and Bottom Ports, Double Solenoid Z-Board
- Z3 = Side Ports only, Single Solenoid Z-Board
- Z4 = Side Ports only, Double Solenoid Z-Board
- Z5 = Z1 with Speed Control
- Z6 = Z2 with Speed Control
- Z7 = Z3 with Speed Control
- Z8 = Z4 with Speed Control

**Voltage**

- 00 = Not Applicable

**Options**

- 000 = Standard
- 14X = External Pilot
- 16N = Jumper on 14 End
- 16P = Jumper on 12 End

**Port Type**

- G = G Tap
- L = Push-in Fitting
- N = NPTF

**Wiring Option**

- J = Plug-in Receptacle Assembly





### How to Order

#### Manifold Assembly

**AK F D H 0000 2 L DRM**

**Electrical/Electronics  
Type & Location**

F = Terminal Strip  
J = 25 Pin Sub-D  
C = Fieldbus Electronics,  
See Electronics Section

**Valve Line**

D = 2004 Series

**\*Number of Valve Stations**

A = 1 I = 9  
B = 2 J = 10  
C = 3 K = 11  
D = 4 L = 12  
E = 5 M = 13  
F = 6 N = 14  
G = 7 O = 15  
H = 8 P = 16

**Options**

STD = Standard  
DRM = DIN Rail Mounting (Std. 35mm)  
MUF = Muffler in End Plates  
DWM = DIN Rail with MUF

**Port Type**

G = G Tap  
L = Push-In  
N = NPTF

**End Plate Port Size**

2 = 1/4  
F = 6 mm (Push-In only)  
H = 8mm (Push-In only)

- The electrical connection type.
  - Sub-D (AK“J”) 16 maximum solenoid outputs
  - Terminal Strip (AK“F”) 16 maximum solenoid outputs

Air-Oil Systems, Inc. www.air-oil.com



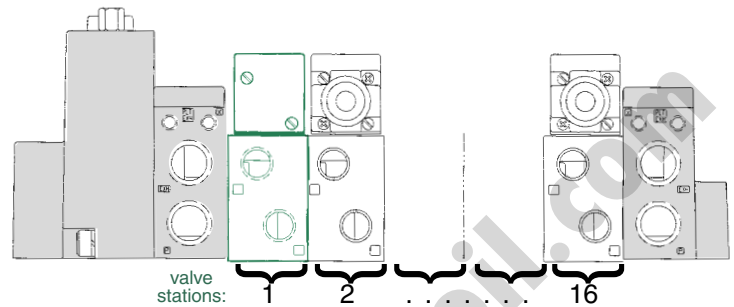
### When Ordering

#### AKJ 25 Pin Sub-D

- Shaded components described by Assembly Kit (AK) model number designation (pg. 7).
- Each valve manifold station is listed in sequential order from left to right when facing the port side of the manifold as indicated.

Example Order:

	AKJDD00002NSTD
valve station 1	042SA4Z3KL00030
valve station 2	042SA4Z3KL00030
valve station 3	042SS4Z4KL00030
valve station 4	042SS4Z4KL00030
	ASSEMBLED

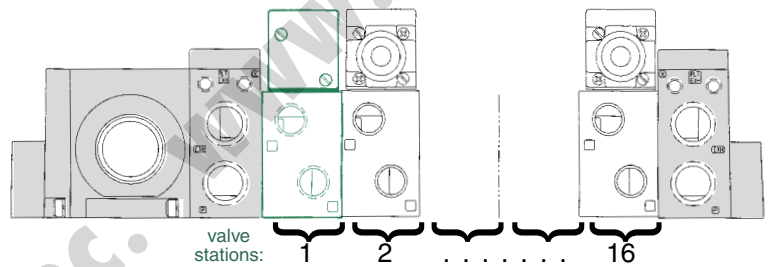


#### AKF Terminal Strip

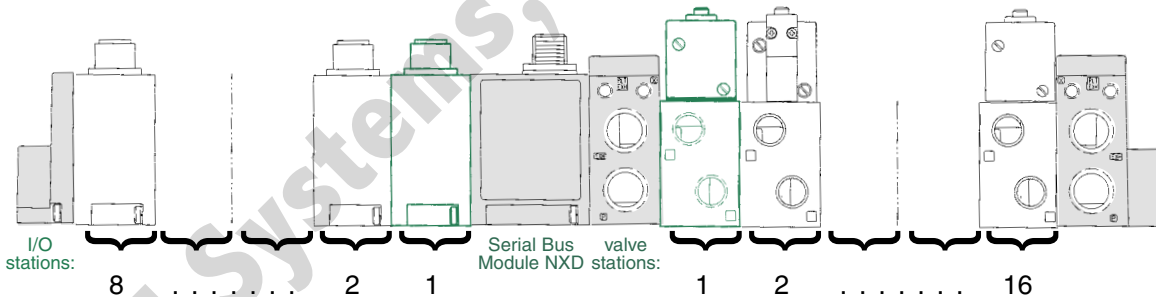
- Ordered using the same method as for 20 Pin Sub-D

Example Order:

	AKFDD0000FGSTD
valve station 1	042SA4Z4KL00030
valve station 2	042SA4Z4KL00030
valve station 3	042SS4Z4KL00030
valve station 4	042SS4Z4KL00030
	ASSEMBLED



#### AKC Serial/Bus



- Shaded components described by Assembly Kit (AK) model number designation (see electronics section), with the exception of the Serial/Bus module and number of I/O stations that are described by Electronic Interface (NXD) model number designation. (see electronics section)
- Each valve manifold station is listed in sequential order from left to right when facing the port side of the manifold as indicated.
- Each discrete I/O station is listed in sequential order from RIGHT to LEFT starting from the Serial/Bus module as indicated.

Example order:

	AKCDD0000HLSTD	
valve station 1	042BA4Z3MK00061	
valve station 2	042BA4Z3MK00061	
valve station 3	042BB4Z4MK00061	
valve station 4	042BB4Z4MK00061	
	NXDDN0808DFE02	
I/O station 1	239-1802	Input Master Kit
I/O station 2	239-1803	Input Slave Kit
I/O station 3	239-1803	Input Slave Kit
I/O station 4	239-1803	Input Slave Kit
I/O station 5	239-1800	Output Master Kit
I/O station 6	239-1801	Output Slave Kit
I/O station 7	239-1801	Output Slave Kit
I/O station 8	239-1801	Output Slave Kit
	ASSEMBLED	

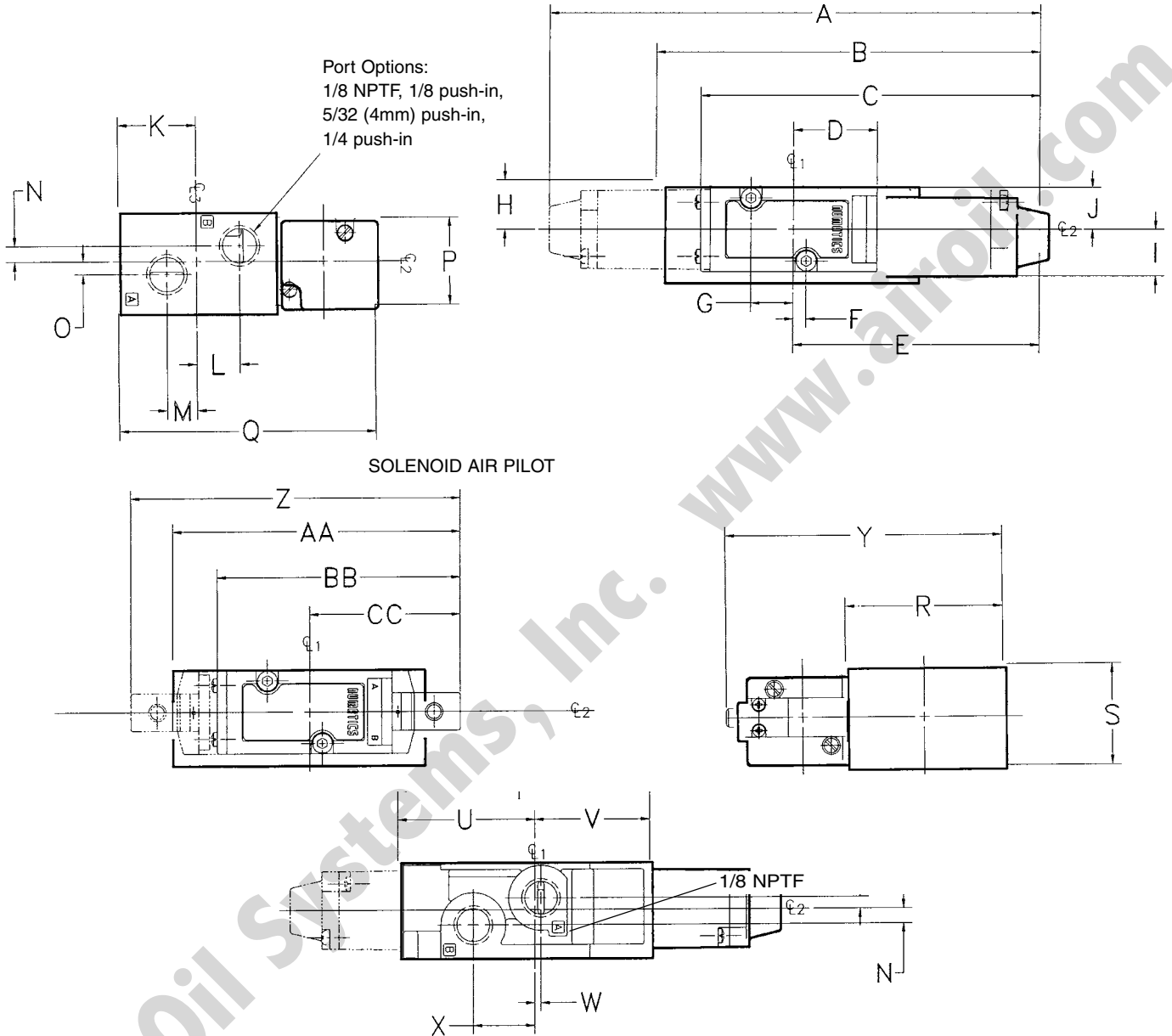
NOTE: I/O station #1 must always be a MASTER KIT (see electronics section).

NOTE: Total of 16 solenoid outputs available. Either 16 single solenoid valves or 8 double solenoid valves or any combination of singles or doubles, not to exceed 16 solenoid outputs.





### Single Station Valve Manifold Assembly direct solenoid and solenoid air pilot



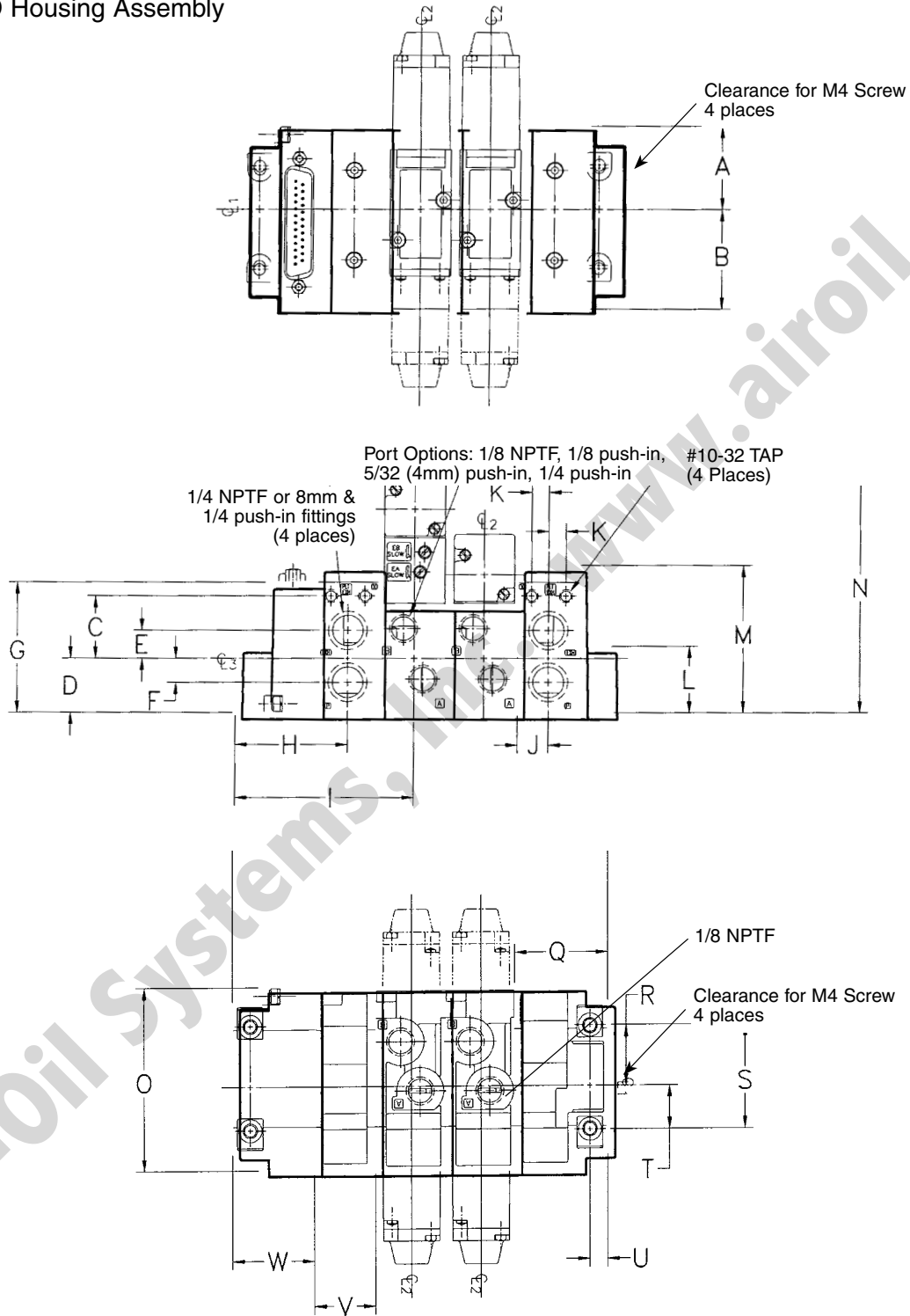
### Dimensions

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

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5.10 (129.6)	3.98 (101.2)	3.52 (89.3)	0.87 (22.0)	2.55 (64.8)	0.13 (3.4)	0.44 (11.3)	0.52 (13.1)	0.48 (12.3)	0.44 (11.1)	0.78 (19.8)	0.43 (11.0)	0.30 (7.6)	0.16 (4.0)	0.13 (3.2)
P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	
0.88 (22.2)	2.57 (65.3)	1.56 (39.7)	1.00 (25.4)	2.64 (67.0)	1.43 (36.4)	1.21 (30.6)	0.06 (1.6)	0.65 (16.4)	2.75 (69.9)	3.45 (87.6)	3.22 (81.6)	2.55 (64.8)	1.58 (40.1)	



### FlexiBlok® Assembly 25 pin sub-D Housing Assembly



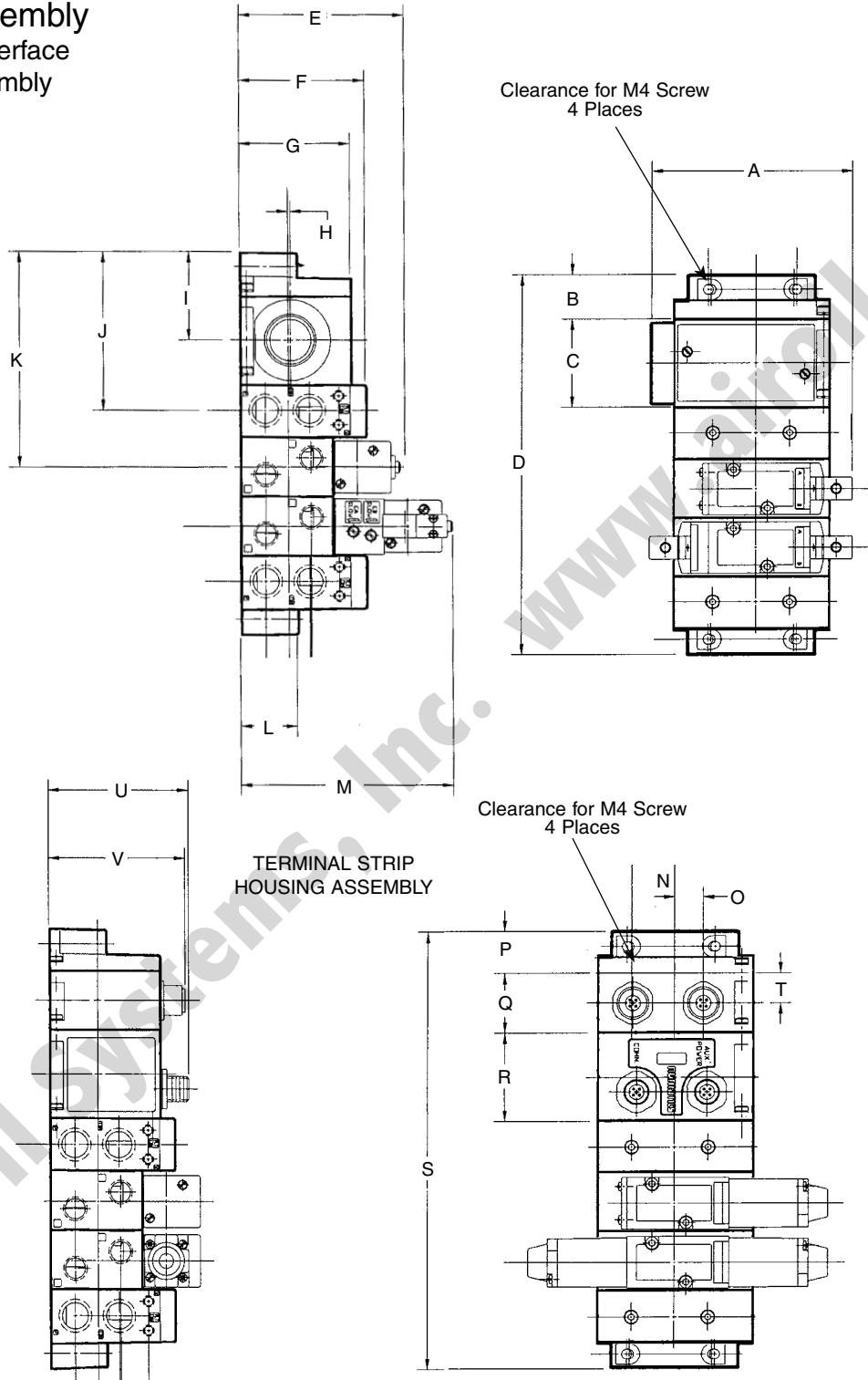
### Dimensions

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

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1.21	1.43	0.90	0.78	0.41	0.34	1.88	1.62	2.58	0.44	0.25	0.96	2.13	3.51	2.64	5.39	1.33	0.87	1.50	0.63	0.25	0.88	1.18
(30.6)	(36.4)	(23.0)	(19.8)	(10.3)	(8.7)	(47.8)	(41.2)	(65.5)	(11.2)	(6.2)	(24.4)	(54.1)	(89.2)	(67.0)	(136.9)	(33.7)	(22.2)	(38.1)	(15.9)	(6.5)	(22.4)	(30.0)



### Flexiblok® Assembly Bus Electronic Interface I/O Housing Assembly



### Dimensions

top dimensions = inches

bottom dimensions (in parenthesis) = millimeters

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
3.41	0.75	1.50	6.46	2.81	2.13	1.88	0.06	1.50	2.69	3.65	0.96	3.61	0.73	0.49	0.71	1.00	1.50	7.42	0.50	2.38	2.32
(86.6)	(19.1)	(38.1)	(164.1)	(71.4)	(54.1)	(47.8)	(1.6)	(38.1)	(68.3)	(92.7)	(24.4)	(91.7)	(18.5)	(12.5)	(18.1)	(25.4)	(38.1)	(188.5)	(12.7)	(60.5)	(59.0)



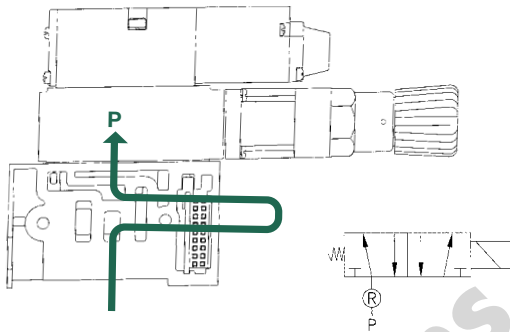
### Sandwich Pressure Regulators Types: RS / RD

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



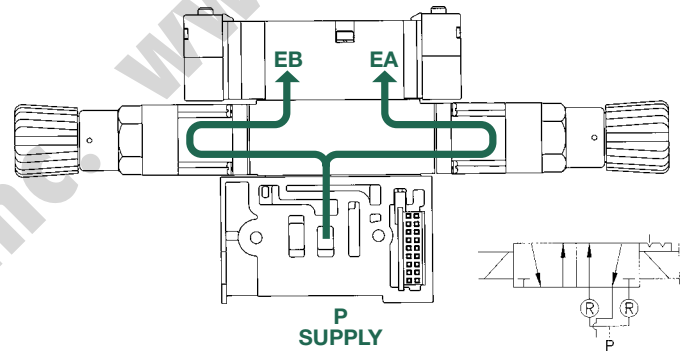
EXAMPLE ORDERS:	TYPE RS	TYPE RD
Valve unit only:	041SA407K000030 (AC)	041BB407MP00061 (DC)
Regulator + mounting	041RS3Z1JN000000 ASSEMBLED	041RD3Z2JN000000 ASSEMBLED

#### Type RS



Single pressure from a single supply.

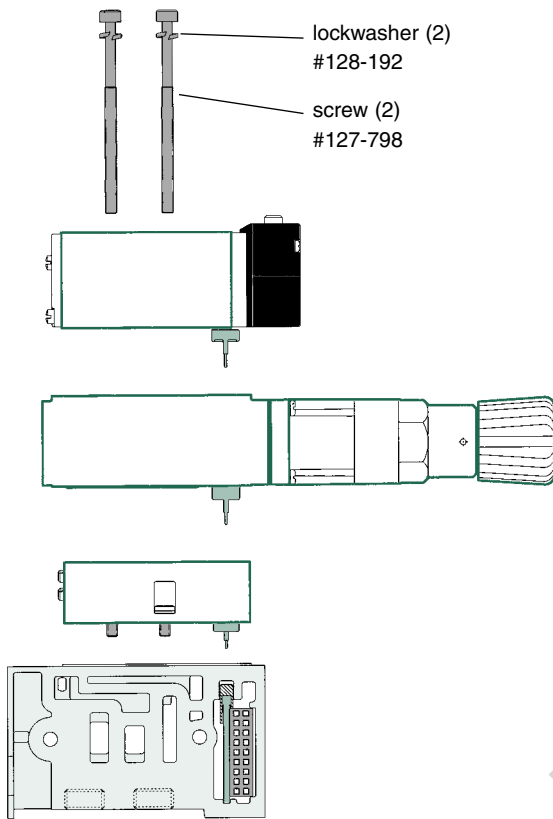
#### Type RD



Dual pressure from a single supply.



### Valve Regulator / Speed Control Plug-in Assembly



#### EXAMPLE

041BA407MP00061

2004 single solenoid valve unit with plug-in assembly and extra long mounting screws for use with regulator and speed control

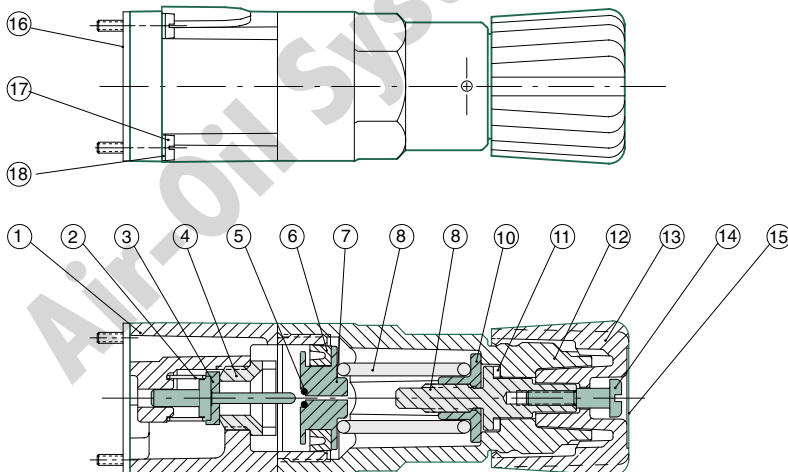
042RS3Z7JL00000

Single pressure regulator Type RS + speed control sandwich mounted on a 1/4 inch manifold with side ports and push-in fittings.

Example order:

Valve: 041BA400M000061  
 Regulator: 042RS3Z7JL00000  
 ASSEMBLED

### Regulator Kits & Service Parts Regulator Service Kit 239-708



#### Parts List

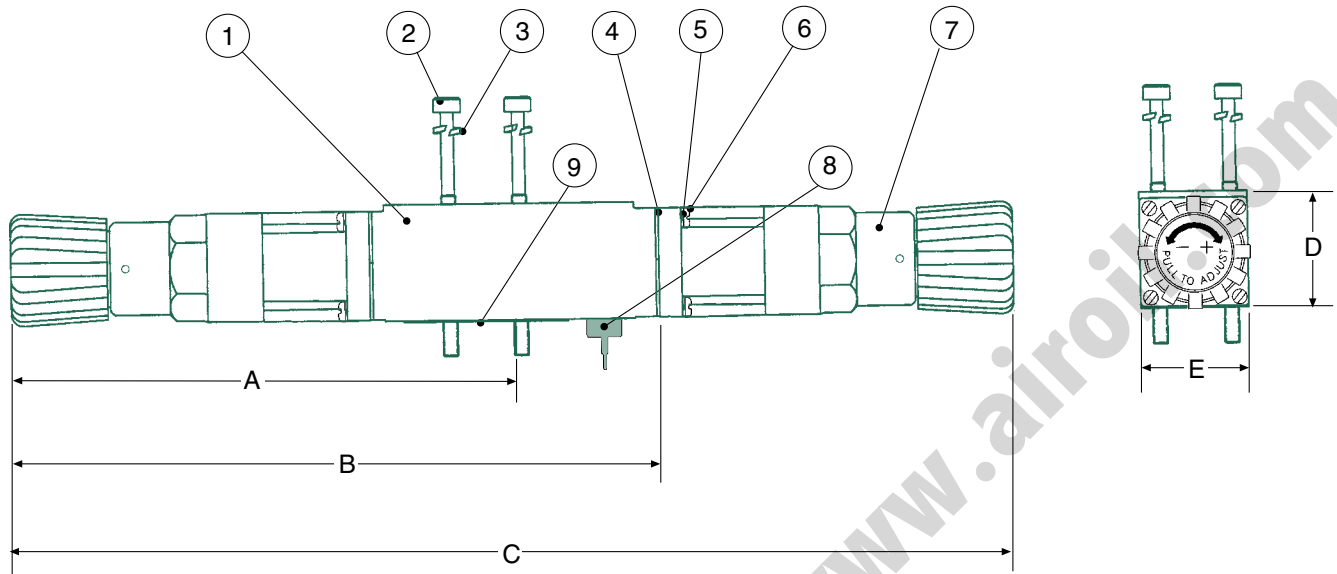
DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Regulator Body	101-706
2*	1	Spring	115-226
3*	1	Poppet Assembly	221-168
4	1	Poppet Seat	124-148
5*	1	O-Ring	126-336
6*	1	Seal U-Packing	124-302
7	1	Piston	125-618
8	1	Spring	0-30 PSIG 115-352 0-100 PSIG 115-342
9	1	Metering Screw	118-187
10	1	Spring Guide	112-369
11*	1	Bearing	125-617
12	1	Bonnet	125-623
13	1	Knob	125-624
14*	1	Screw	127-706
15	1	Label	122-992
16*	1	Gasket	113-472
17	4	Screw	127-380
18	4	Lockwasher	128-172

\* (2) Required for RD

\*\* (8) Required for RD



### Sandwich Pressure Regulator



#### Dimensions

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

A	B	C	D	E
4.08 (103.7)	5.24 (133.0)	8.17 (207.4)	0.94 (23.9)	0.87 (22.1)

#### Parts List

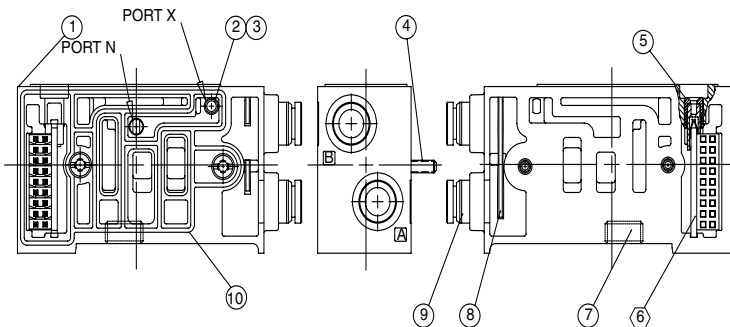
DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Regulator Block (RD)	125-716
1	1	Regulator Block (RD)	125-715
2	2	Soc. Head Cap Screw	127-798
3	2	Lockwasher	128-192
4*	2	Gasket	113-472
5**	8	Lockwasher	128-172
6**	8	Screw	127-380
7**	2	Regulator Assembly (not sold separately)	
8	1	J Plug Board Encap.	230-835
9	1	Gasket	113-499
not shown	1	Retaining Shroud	125-717
not shown	1	Shroud	125-718
		Pressure Gauge 0-150 PSIG	214-209
		Pressure Gauge 0-60 PSIG	214-216

\* (1) Required for RS  
\*\* (4) Required for RS





### Manifolds



Stud  
#127-792

### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Manifold	106-1371
2	1	Blocking Disk	125-730
3	1	O'Ring Seal	126-427
4	2	Stud	127-792
5	1	Retaining Shroud	125-717
6	1	Manifold Board ASS'Y	not sold separately
7	1	Pipe Plug (1/8 NPTF)	129-100
8	1	Fitting Clip	125-1136
9	2	1/4 Slip-In Cartridge	134-518
		1/8 Slip-In Cartridge	134-500
		4MM Slip-In Cartridge	134-498
		8MM Slip-In Cartridge	134-499
10	1	Gasket	113-504

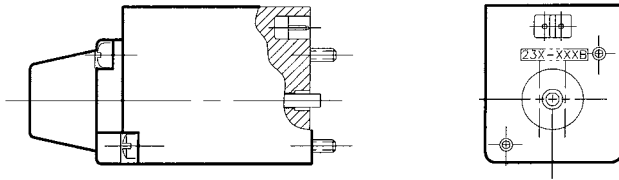
MANIFOLD ASSEMBLY KITS	1/8 NPTF	G 1/8	1/8 PUSH-IN	5/32 - 4MM PUSH-IN	1/4 PUSH-IN	6MM PUSH-IN
Single "Z-Board"™	239-935	239-1036	239-2346	239-2348	239-2345	239-2347
Double "Z-Board"™	239-934	239-1035	239-2350	239-2352	239-2349	239-2351

NOTE: For direct acting applications, factory will install plug into the N-port.  
 For SPA applications, factory will install plug into the X-port.  
 For manifolds ordered individually, pilot plugs will be packaged separately.  
 If using internal pilot supply (Port N), the X-port in the left end plate must be plugged.



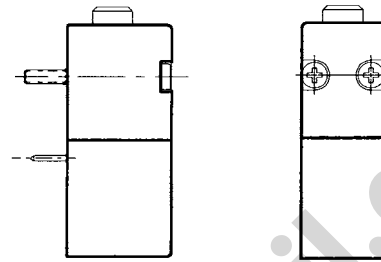
## 2004 Series

### Solenoid Assembly Direct Solenoid

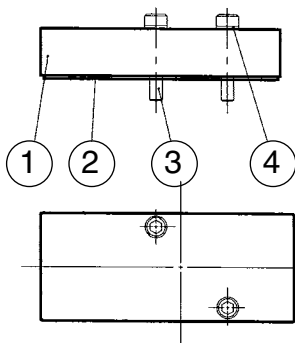


VDC	2 Pos.	3 Pos.
24	236-319	236-337
VAC	2 Pos.	3 Pos.
110-120/50-60	237-1018	237-1015
24/50-60	237-1019	237-1017

### Solenoid Air Pilot 236-565



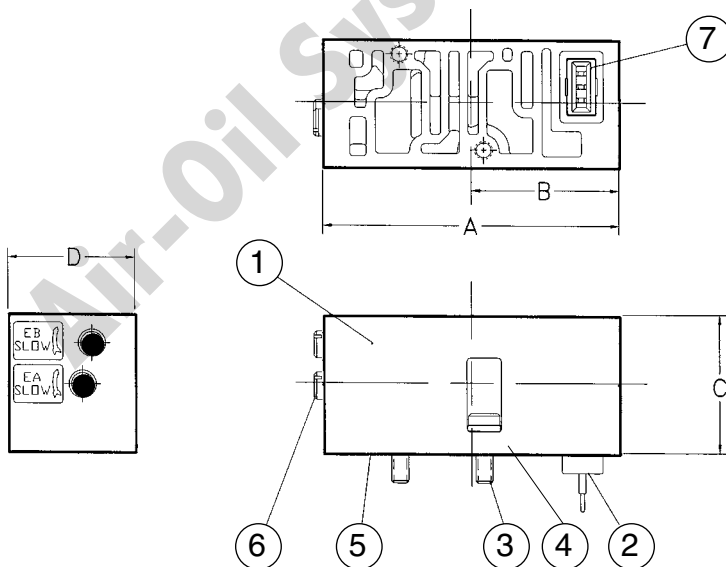
### Blank Station Plate Kit 239-915



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Blank Station Plate	104-638
2	1	Gasket	113-505
3	2	Screw	127-536
4	2	Lockwasher	128-192

### Speed Control Kit 239-916



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Speed Control (not sold separately)	
2	1	J Plug Board Encap.	230-835
3	2	Screw	127-795
4	2	Lockwasher	128-192
5	1	Gasket	113-499
6	2	Metering Screw	118-198
7	1	Retaining Screw	125-717
not shown	1	Shroud	125-718
not shown	2	Nylon Rod (for metering screw)	125-259

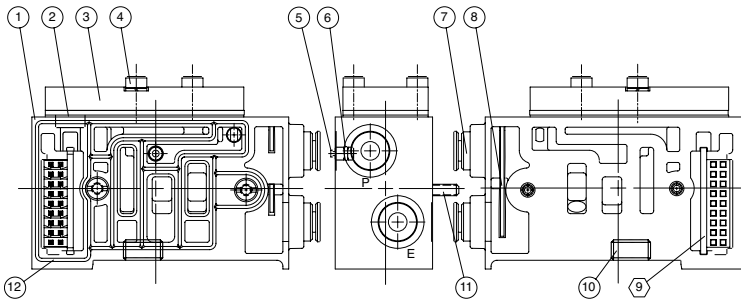
#### Dimensions

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

A	B	C	D
2.04 (51.8)	1.02 (25.9)	0.94 (23.8)	0.87 (22.1)



### Mid-Station Supply and Exhaust Block



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Mid Station Plate	125-1143
2	1	Gasket	113-505
3	1	Blank Station Plate	104-638
4	2	Screw Ass'Y	127-570
5	1	Blocking Plug	125-730
6	1	O-Ring	126-427
7	2	Tube Cartridge	134-499
8	1	Fitting Clip	125-1136
9	1	Transfer Board Ass'Y	256-717
10	1	Pipe Plug	129-100
11	2	Stud	127-792
12	1	Gasket	113-504

#### PORT SIZE

#### PART NO.

1/8

239-1419

G 1/8

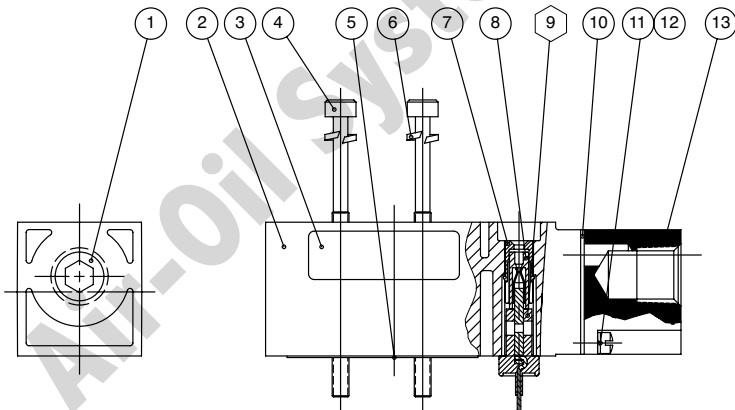
239-1616

6mm Push-in

239-2344

### Sandwich Pressure Block 1/8 NPTF

239-2519



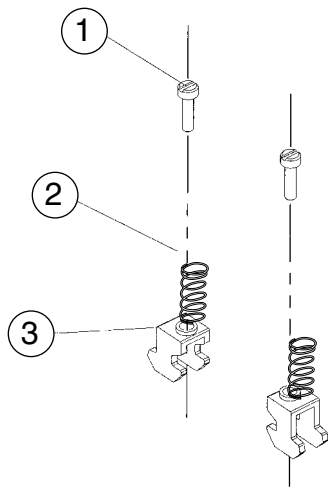
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Pipe Plug	129-100
2	1	Riser Block	125-715
3	1	Nameplate	122-242
4	2	Screw	127-798
5	1	Gasket	113-499
6	2	Lockwasher	128-192
7	1	Retaining Shroud	125-717
8	1	Shroud	125-718
9	1	J Plug Board Encap.	230-835
10	1	Gasket	113-290
11	4	Screw	127-260
12	4	Lockwasher	128-172
13	1	Adapter	119-737

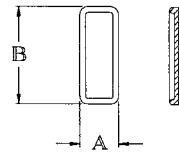


### DIN Rail Clamp Kit

239-980



### Blocking Discs

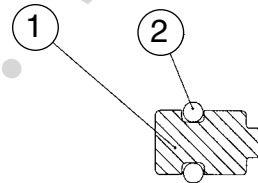


PORT	PART NO.	A	B
P	124-307	0.27	0.70
EA	124-308	0.19	0.73
EB	124-309	0.24	0.54

### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	4	Screw	127-472
2	4	Spring	115-355
3	4	Clamp	125-720

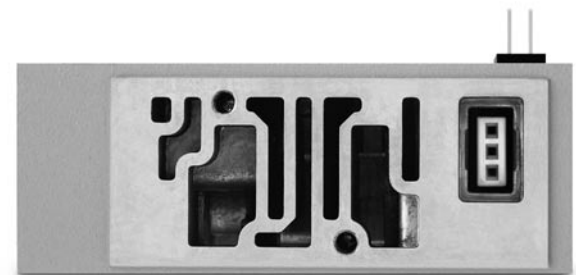
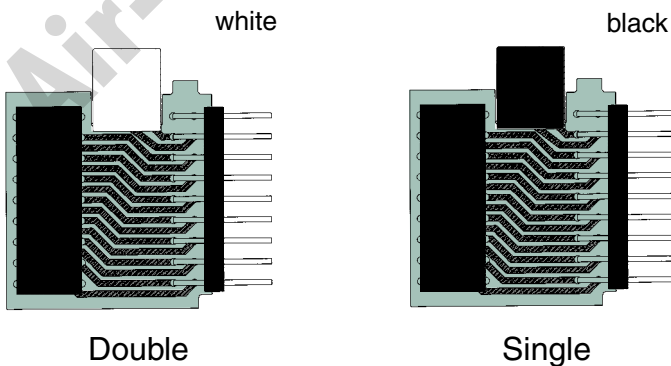
### Internal Pilot Plug Assembly



### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Blocking Plug	125-730
2	1	O-Ring	126-427

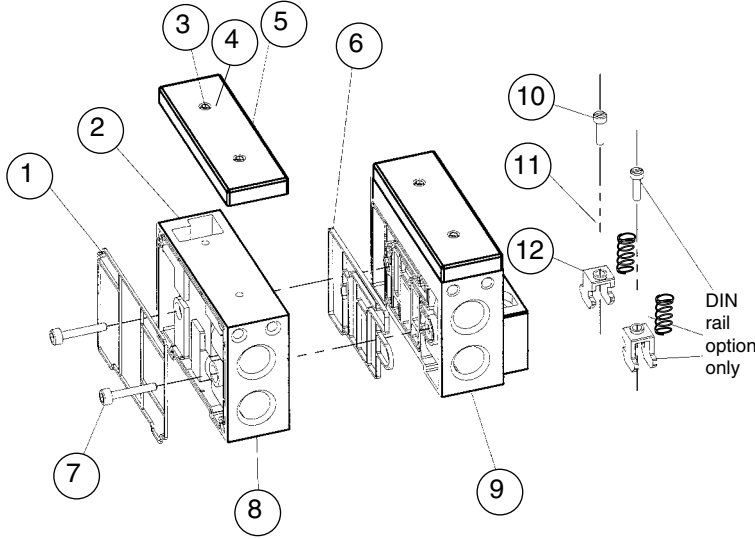
### "Z-Boards"™



Plug color visible from top of manifold block.



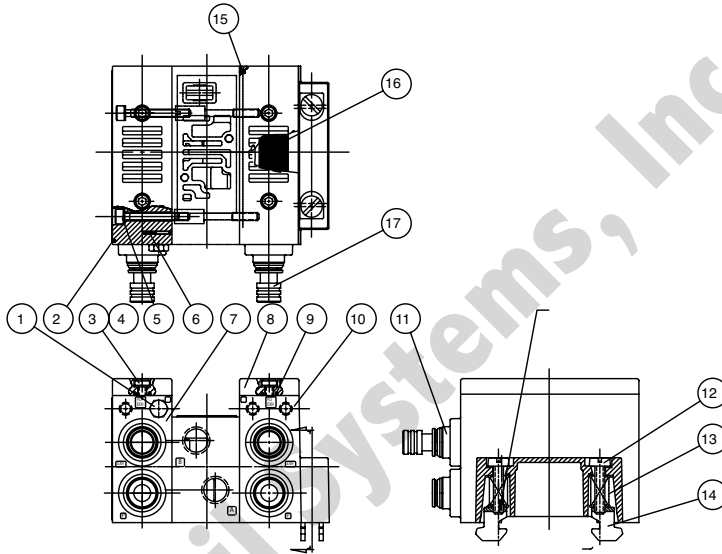
### End Plate Assembly Kit - Threaded



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Gasket	113-503
2	2	Gasket	113-500
3	4	Screw	127-795
4	4	Lockwasher	128-192
5	2	End Plate Cover	105-377
6	1	Gasket	113-504
7	2	Screw Assembly	127-563
8	1	LH End Plate	See Chart
9	1	RH End Plate	See Chart
10	2	Screw	127-472
11	2	Spring	115-355
12	2	Clamp	125-720

### End Plate Assembly Kit - Push-In



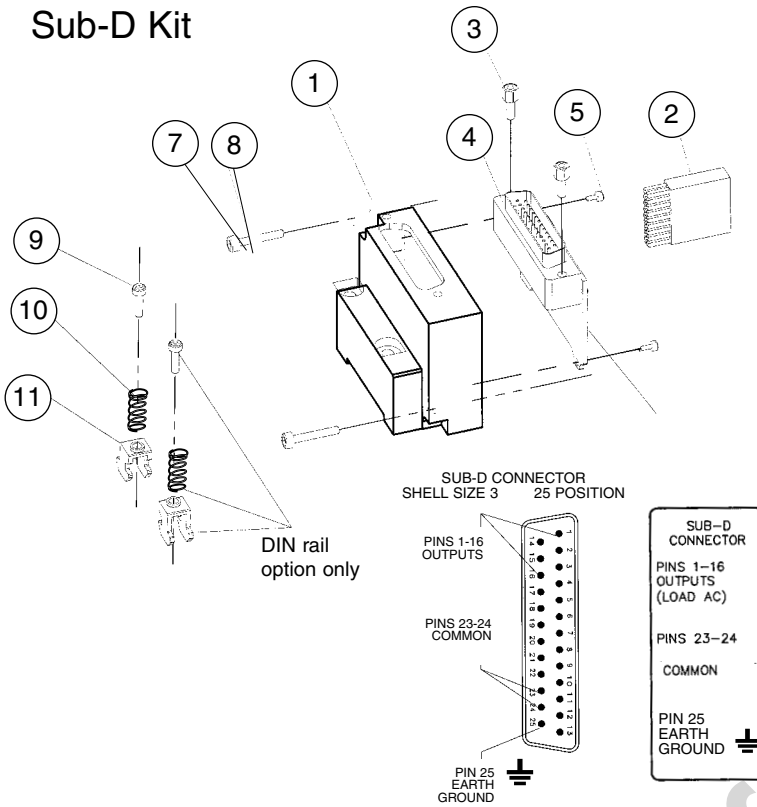
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Plug	129-138
2	1	Gasket	113-503
3	4	Screw	127-795
4	4	Lockwasher	128-192
5	2	Screw Ass'y	127-563
6	2	Retaining Clip	125-1137
7	1	LH End Plate	104-813
8	2	End Plate Cover	105-412
9	2	Gasket	113-500
10	1	RH End Plate	104-814
11	4	1/4 Fitting Cartridge	134-502
12	2	Screw	127-472
13	2	Spring	115-355
14	2	Clamp	125-720
15	1	Gasket	113-504
16	2	Muffler	125-846
17	2	Plug	IN118-104-000

FITTING TYPE	1/4 NPTF	ISO228/1-G1/4	1/4 PUSH-IN	6MM PUSH-IN	8MM PUSH-IN
LH End Plate	104-610	104-633	104-813	104-813	104-813
RH End Plate	104-611	104-631	104-814	104-814	104-814
Kit Number without DIN Rail	239-943	239-945	239-2338	239-2336	239-2340
Kit Number with DIN Rail	239-950	239-952	239-2337	239-2335	239-2339
Kit Number with Muffler	N/A	N/A	239-2360	239-2359	239-2361
Kit Number with Muffler & DIN Rail	N/A	N/A	239-2363	239-2362	239-2364



### Sub-D Kit



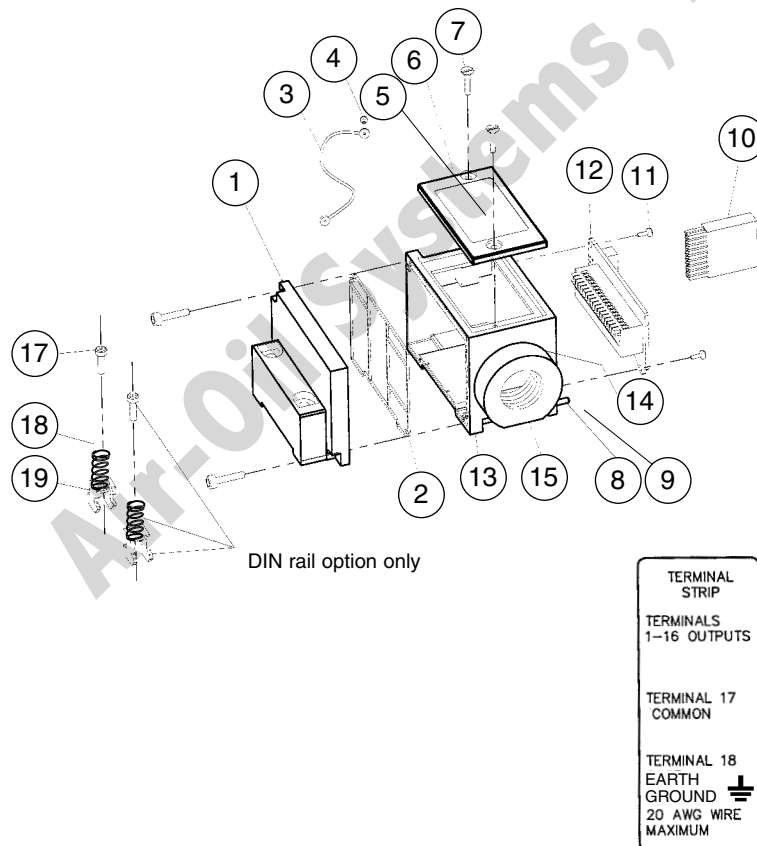
### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Housing	105-379
2	1	Transfer Connector	140-672
3	2	Hex Screw	127-825
4	1	Gasket	113-507
5	2	Screw	127-794
6	1	Sub-D Board Assembly	256-532
7	2	Screw	127-499
8	2	Lockwasher	128-192
9	2	Screw	127-472
10	2	Spring	115-355
11	2	Clamp	125-720

### SUB-D HOUSING KITS

	PART NO.
With DIN Rail	239-972
Without DIN Rail	239-968

### Terminal Block Kit



### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	LH DIN Rail Mtg. Cover	105-381
2	1	Gasket	113-503
3	1	Cover Strap	125-772
4	1	Stick Screw	127-180
5	1	Cover	105-384
6	1	Gasket	113-508
7	2	Screw	127-826
8	4	Screw	127-795
9	6	Lockwasher	128-192
10	1	Transfer Connector	140-672
11	3	Screw	127-794
12	1	Terminal Strip Board	256-560
13	1	Housing	125-765
14	1	Gasket	113-509
15	1	Adaptor 1/2" NPTF	119-598
16*	2	Adaptor Mtg. Screw	127-827
17	2	Screw	127-472
18	2	Spring	115-355
19	2	Clamp	125-720

### SUB-D HOUSING KITS

	PART NO.
With DIN Rail	239-1023
Without DIN Rail	239-1022



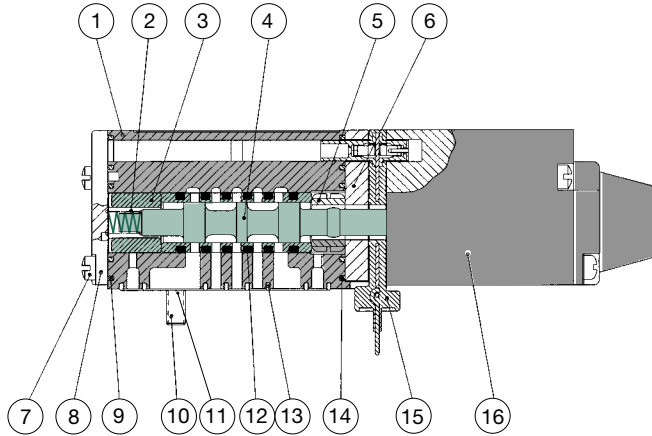


### Valve Service Kits and Parts

#### Direct Acting

Kit No. MK4-K1\*

(For Models 041SA4, 042SA4, 04DSA4)



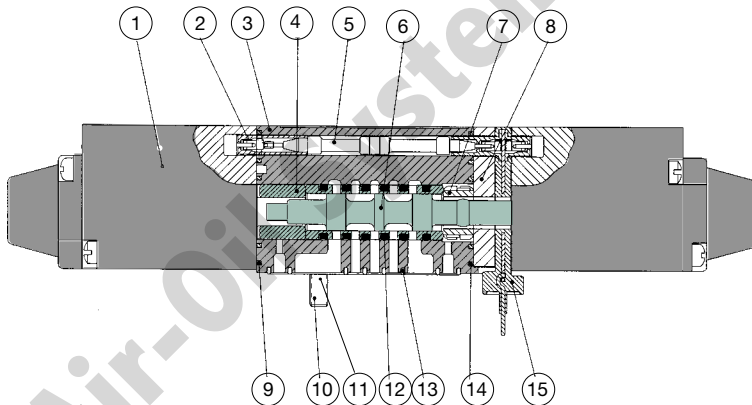
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Valve Body (not sold separately)	
2*	1	Spring	115-203
3*	1	Bumper	114-183
4	1	Sleeve Assembly with Seals	209-547
5*	1	Detent Body	110-109
6	1	Spacer	116-496
7	2	Screw	127-797
8	1	Spring Cover	104-609
9*	1	Gasket	113-502
10	2	Screw	127-797
11	2	Lockwasher	128-192
12*	6	Seal	126-133
13*	1	Gasket	113-499
14*	1	Gasket	113-501
15	1	Solenoid Board Encap.	230-1134
16	1	Solenoid Capsule	

\* Indicates parts included in kit.

Kit No. MK4-K1\*

(For Models 041SS4, 042SS4, 04DSS4)



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Solenoid Capsule	
2	1	Duck Bill Housing	125-719
3	1	Valve Body (not sold separately)	
4*	1	Bumper	114-183
5	1	A-B Recept. Encap.	230-834
6	1	Sleeve Assembly with Seals	209-547
7*	1	Detent Body	210-111
8	1	Spacer	116-496
9*	1	Gasket	113-502
10	2	Screw	127-797
11	2	Lockwasher	128-192
12*	6	Seal	126-133
13*	1	Gasket	113-499
14*	1	Gasket	113-501
15	1	Solenoid Board Encap.	230-1134

\* Indicates parts included in kit.

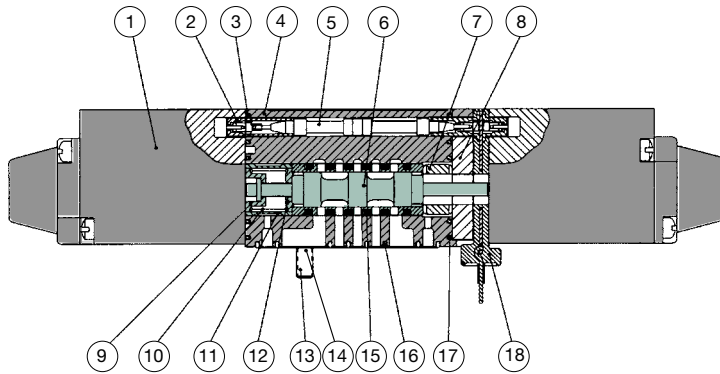


### Valve Service Kits and Parts

#### Direct Acting

Kit No. MK4-K3\*

(For Models 041SS5, 042SS5, 04DSS5)



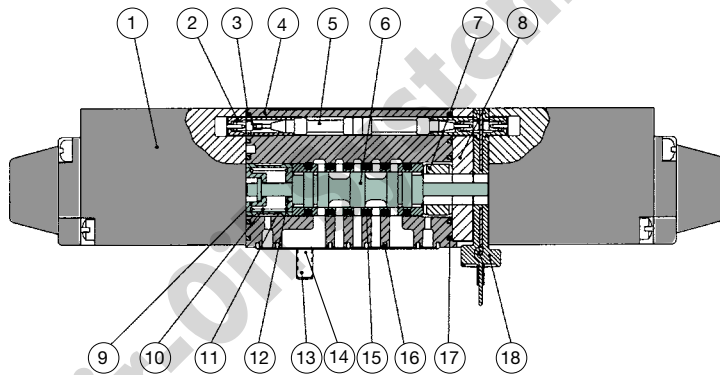
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Solenoid Capsule	
2	1	Duck Bill Housing	125-719
3*	1*	Gasket	113-502
4	1	Valve Body (not sold separately)	
5	1	A-B Recept. Encap.	230-834
6	1	Sleeve Assembly with Seals	209-548
7*	1	Bumper	114-171
8	1	Spacer	116-496
9*	1	Spring Retainer	116-396
10	1	Spring	115-291
11*	1	Spacer	116-397
12*	1	Spring Retainer	116-395
13	2	Screw	127-797
14	2	Lockwasher	128-192
15*	6	Seals	126-133
16*	1	Gasket	113-499
17*	1	Gasket	113-501
18	1	Solenoid Board Encap.	230-1134

\* Indicates parts included in kit.

Kit No. MK4-K3\*

(For Models 041SS6, 042SS6, 04DSS6)



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Solenoid Capsule	
2	1	Duck Bill Housing	125-719
3*	1	Gasket	113-502
4	1	Valve Body (not sold separately)	
5	1	A-B Recept. Encap.	230-834
6	1	Sleeve Assembly with Seals	209-549
7*	1	Bumper	114-171
8	1	Spacer	116-496
9*	1	Spring Retainer	116-396
10*	1	Spring	115-291
11*	1	Spacer	116-397
12*	1	Spring Retainer	116-395
13	2	Screw	127-797
14	2	Lockwasher	128-192
15*	6	Seals	126-133
16*	1	Gasket	113-499
17*	1	Gasket	113-501
18	1	Solenoid Board Encap.	230-1134

\* Indicates parts included in kit.

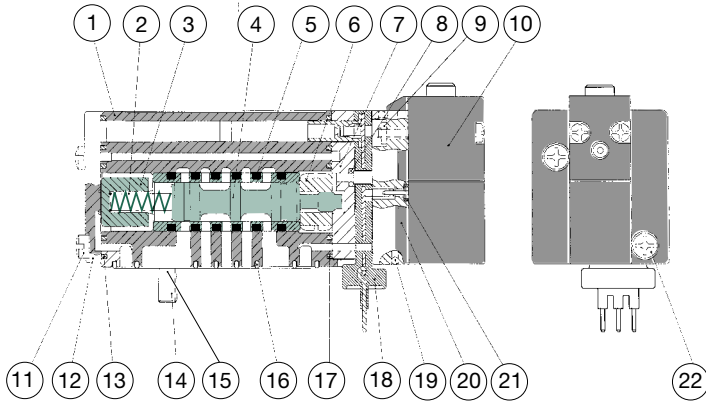


### Valve Service Kits and Parts

#### Solenoid Air Pilot

Kit No. SPA4-K1\*

(For Models 041BA4, 042BA4, 04DBA4)



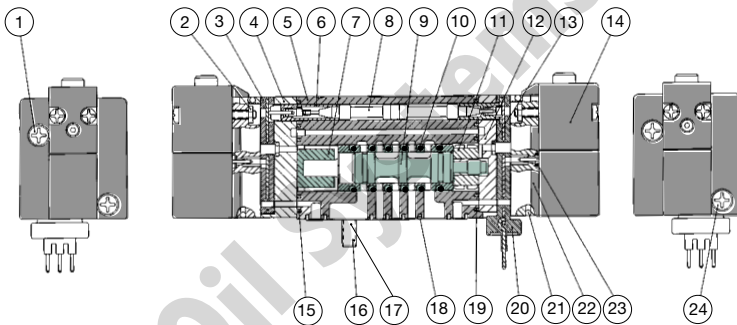
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	1	Body (not sold separately)	
2 *	1	Spring	115-356
3 *	1	Spring Retainer	116-502
4	1	Sleeve Assembly with Seals	209-555
5 *	6	Seals	126-133
6	1	Detent Body	110-117
7	1	Spacer	116-500
8 *	2	Gasket	113-512
9	2	M1.6 Hex Jam Nut	128-320
10	1	Solenoid Capsule Assembly	See p. 16
11	2	Screw	127-260
12	1	Spring Cover	104-609
13 *	1	Gasket	113-502
14	2	Screw	127-797
15	2	Lockwasher	128-192
16 *	1	Gasket	113-499
17 *	1	Gasket	113-501
18	1	Solenoid Board Encap.	230-1135
19	2	3/64 Ball	121-142
20	1	Pilot Adaptor	119-601
21 *	1	Gasket	113-513
22	2	M2 x 8mm Screw	127-829

\* Indicates parts included in kit.

Kit No. SPA4-K1\*

(For Models 041BB4, 042BB4, 04DBB4)



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	M2 x 14mm Screw	127-828
2	4	M1.6 Hex Jam Nut	128-320
3	1	Solenoid Board Encap.	230-854
4	1	Spacer	116-501
5	1	Body (not sold separately)	
6	1	Duck Bill Housing	125-719
7 *	1	Spring Retainer	116-502
8	1	A-B Recept. Encap.	230-834
9	1	Sleeve Assembly with Seals	209-555
10 *	6	Seals	126-133
11 *	6	Detent Assembly	210-122
12	1	Spacer	116-500
13 *	1	Gasket	113-512
14	2	Solenoid Capsule Assembly	See p. 16
15 *	1	Gasket	113-502
16	2	Screw	127-797
17	2	Lockwasher	128-192
18 *	1	Gasket	113-499
19 *	1	Gasket	113-501
20	1	Solenoid Board Encap.	230-1135
21	4	3/64 Ball	121-142
22	2	Pilot Adaptor	119-601
23 *	1	Gasket	113-513
24	2	M2 x 8mm Screw	127-829

\* Indicates parts included in kit.

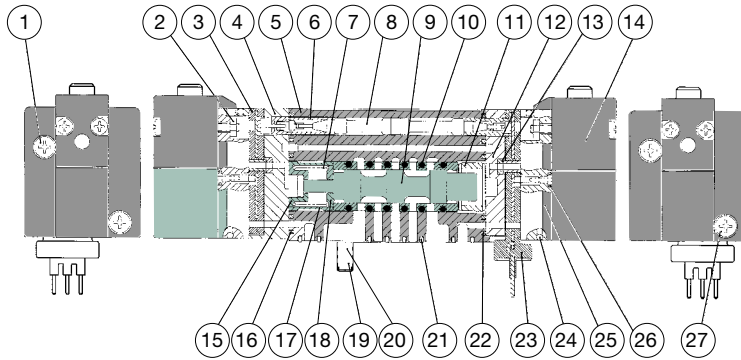


### Valve Service Kits and Parts

#### Solenoid Air Pilot

Kit No. SPA4-K3\*

(For Models 041BB5, 042BB5, 04DBB5)



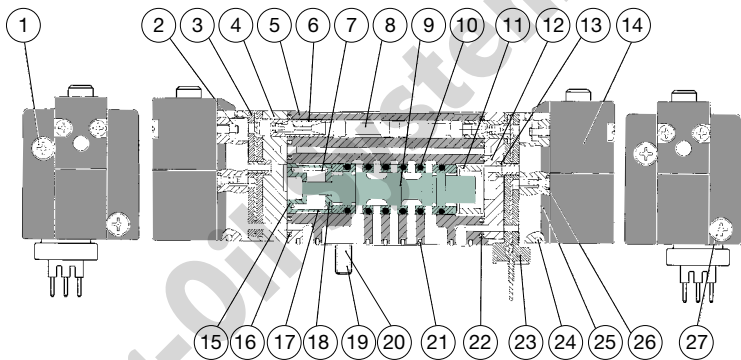
#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Screw	127-828
2	4	Hex. Nut	128-320
3	1	Solenoid Board Encap.	230-854
4	1	Spacer	116-501
5	1	Body (not sold separately)	
6	1	Duck Bill Housing	125-719
7*	1	Spring	115-291
8	1	A-B Recept Encap.	230-834
9	1	Sleeve Assembly with Seals	209-556
10*	6	Seals	126-133
11	1	Bumper	114-171
12	1	Spacer	116-500
13*	2	Gasket	113-512
14	2	Solenoid Capsule Assembly	See p. 16
15*	1	Spring Retainer	116-396
16*	1	Gasket	113-502
17*	1	Spacer	116-397
18*	1	Spring Retainer	116-395
19	2	Screw	127-797
20	2	Lockwasher	128-192
21*	1	Gasket	113-499
22*	1	Gasket	113-501
23	1	Solenoid Board Encap.	230-1135
24	4	3/64 Ball	121-142
25	2	Pilot Adaptor	119-601
26	2	Gasket	113-513
27	2	Screw	127-829

\* Indicates parts included in kit.

Kit No. SPA4-K3\*

(For Models 041BB6, 042BB6, 04DBB6)



#### Parts List

DET. NO.	NO. REQ'D	PART NAME	PART NO.
1	2	Screw	127-828
2	4	Hex. Nut	128-320
3	1	Solenoid Board Encap.	230-854
4	1	Spacer	116-501
5	1	Body (not sold separately)	
6	1	Duck Bill Housing	125-719
7*	1	Spring	115-291
8	1	A-B Recept Encap.	230-834
9	1	Sleeve Assembly with Seals	209-557
10*	6	Seals	126-133
11*	1	Bumper	114-171
12	1	Spacer	116-500
13*	2	Gasket	113-512
14	2	Solenoid Capsule Assembly	See p. 16
15*	1	Spring Retainer	116-396
16*	1	Gasket	113-502
17*	1	Spacer	116-397
18*	1	Spring Retainer	116-395
19	2	Screw	127-797
20	2	Lockwasher	128-192
21*	1	Gasket	113-499
22*	1	Gasket	113-501
23	1	Solenoid Board Encap.	230-1135
24	4	3/64 Ball	121-142
25	2	Pilot Adaptor	119-601
26	2	Gasket	113-513
27	2	Screw	127-829

\* Indicates parts included in kit.

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