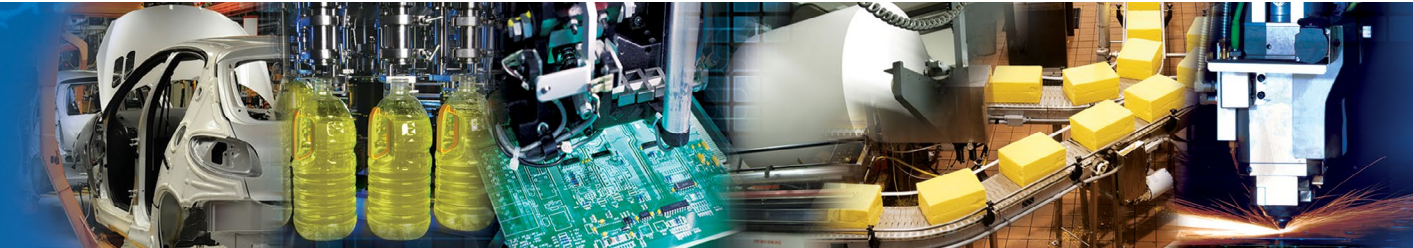


2012 Series

Solenoid Pilot Actuated Valves



2012 Series

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Technical and Operating Data	4
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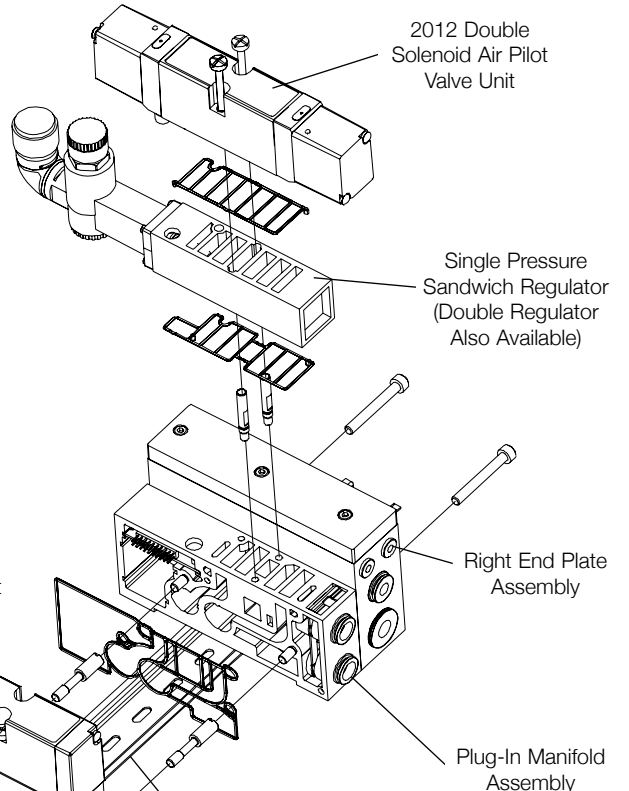
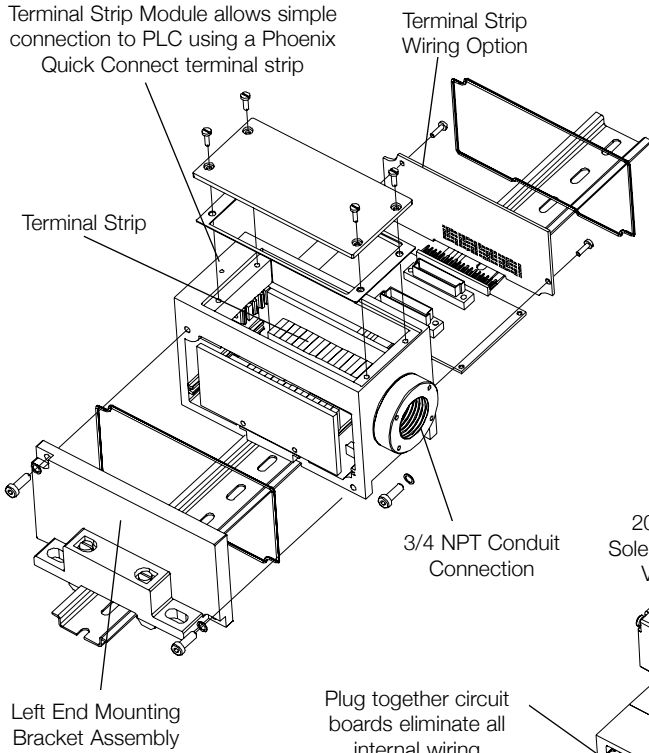
Assembly Kits

How to Order	25
25 or 37 Pin Sub-D	26
1-16 or 1-32 Terminal Strip	26
26 or 26+12 Pin Round Connector	26
Connector Kits	27-29
Electrical Interface	30

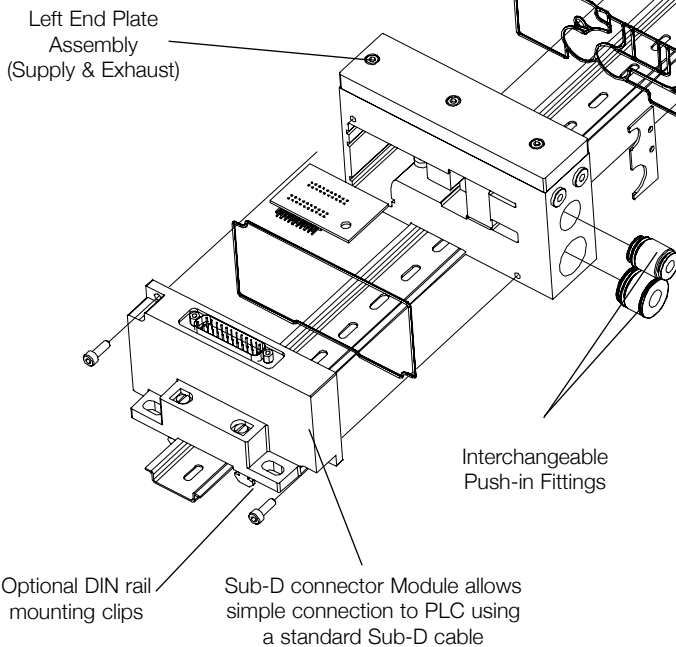
Manifold and Wiring Architecture

**Terminal Strip, Sub-D, and Round Connector Options
(exploded view)**

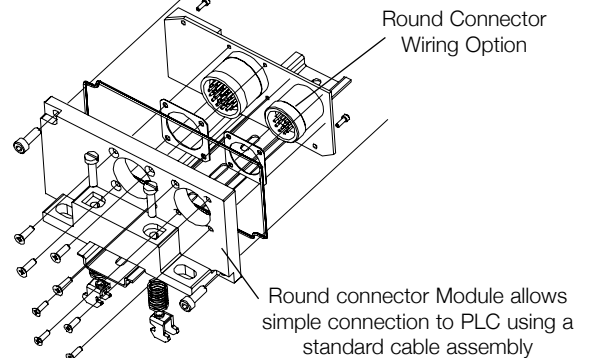
Terminal Strip Option



Sub-D Option



Round Connector Option



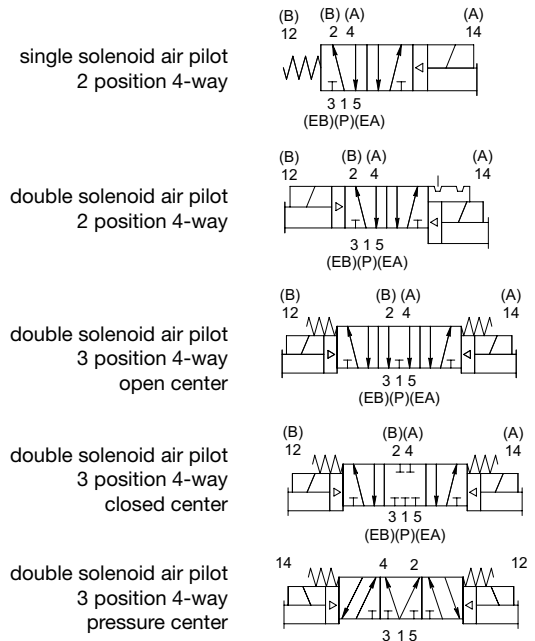
5 Ported, 2 and 3 position, 4-way, Spool & Sleeve Cv: 1.2

- Solenoid air pilot actuated
- Low wattage plug-in – 2.5 watt for DC application
- DC solenoids polarity insensitive with surge suppression
Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- Interchangeable push-in fittings to accommodate various tube sizes
- Simple conversion from internal to external pilot
- Modular plug-together Fieldbus electronics
- Designed to meet the requirement of NEMA 4 / IP65



Technical Data

Valve Data	English	Metric
Cv	1.20	1.20
Flow Capacity	56 SCFM @ 80 PSIG upstream pressure to atmosphere	1180 NI/m @ 6 bar upstream to 5 bar downstream
Operating Pressure Range	28" Hg Vacuum to 150 PSIG	Vacuum to 10 bar
Pilot Pressure Range	26 to 120 PSIG	1.8 to 8.2 bar
Temperature Range (Ambient)	-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)	2.5	4.2
Holding Current (Amps.)	0.10	0.05

Response Time in Seconds	Energize	De-Energize	Energize	De-Energize
2-Position, Single, Spring Return	0.010	0.020	0.010	0.020
2-Position, Double, Detented	0.010	N/A	0.010	N/A
3-Position, Spring Centered	0.010	0.020	0.010	.020

How to Order

Valves

122 BB 4 Z6 M L 000 61

Valve Series & Port Size

122* = 1/4
123 = 3/8
12H = 8mm
12K = 10mm
*Use for valve unit only (Mounting = 00)

Valve Type

BA = Single Solenoid Pilot, (Spring Return) w/Flush Non-Locking Override
BB = Double Solenoid Pilot w/Flush Non-Locking Override
00 = Blank Station

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
P = Blank Station Plate

Mounting

00 = Valve Unit only
3A = Individual Base, Side Ports, Individual Exhaust
3C = 3A w/Speed Control
Z1 = Manifold Block w/Side and Bottom Ports, Single Solenoid Internal Circuit Board
Z2 = Manifold Block w/Side and Bottom Ports Double Solenoid Internal Circuit Board
Z5 = Z1 w/Speed Control
Z6 = Z2 w/Speed Control
R1 = Z1 w/ Ribbon Cable Connector
R2 = Z2 w/ Ribbon Cable Connector
R5 = Z5 w/ Ribbon Cable Connector
R6 = Z6 w/ Ribbon Cable Connector

Voltage

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

Special Options

11B = Flush Locking Override
11M = No Override
56Y = 12mm Electrical Connector in Conduit Port of Base Mounting only (See below)

Port Type

L = Push-in Fitting
N = NPTF
G = G Tap
0 = Valve Unit only

Wiring Option

K = Plug-in AC w/Light
M = Plug-in DC w/Light
0 = Blank Station

Wiring Diagram
4 Pin 12mm (Micro) Connector
56Y (Mounting)

Solenoid 14 Solenoid 12

NOTE: Manifold assembly kit ordering information for:

- Electrical interface options see page 30.
- Fieldbus electronics see Electronics section.

Regulators

122 RS 3 Z1 J L 000 00

Valve Series & Port Size

122* = 1/4
123 = 3/8
12H = 8mm
12K = 10mm
*Use for regulator unit only (Mounting = 00).

Regulator Type

RS = Single Pressure to Port 1 (P)
RD = Dual Pressure to Ports 3 (EB) \$ 5 (EA)
RC = Dual Pressure w/Non-relieving Checks
RQ = Dual Pressure w/Relieving Checks
RE = Dual Pressure to Ports 4 (A) & 2 (B)
RT = 2 Pressure Selector
*F for metric gauge, replace R with E in 4th digit.

Pressure Range

1 = 10-130 PSIG (0.7-9 bar)
3 = 3-30 PSIG (0.2-2 bar)
4 = 5-60 PSIG (0.5 - 4 bar)

Special Options

12H = Less gauge
16N = Jumper on 14 (A) End
16P = Jumper on 12 (B) End
16W = Top Facing Gauge

Port Type

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

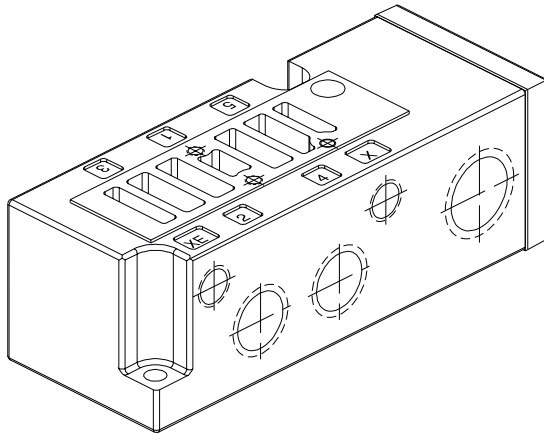
Wiring Option

J = Plug-In Receptacle Ass'y
O = Non-Plug-In (Type RE only)

Mounting

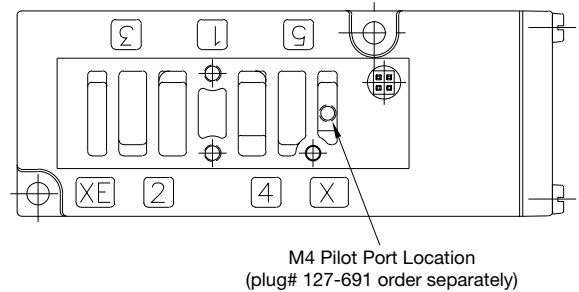
00 = Regulator Unit Only
3A = Individual Base, Side Ports, Individual Exhaust
3C = 3A w/Speed Control
R1 = Z1 w/Ribbon Cable Connector
R2 = Z2 w/Ribbon Cable Connector
R5 = Z5 w/Ribbon Cable Connector
R6 = Z6 w/Ribbon Cable Connector
Z0 = Manifold Block w/Side and Bottom Ports, Transfer Board, Used w/RE Regulators RE only (no Z-board)
Z1 = Manifold Block w/Side and Bottom Ports, Single Solenoid Internal Circuit Board
Z2 = Manifold Block w/Side and Bottom Ports, Double Solenoid Internal Circuit Board
Z5 = Z1 w/Speed Control
Z6 = Z2 w/Speed Control

Individual Base Assembly Kit

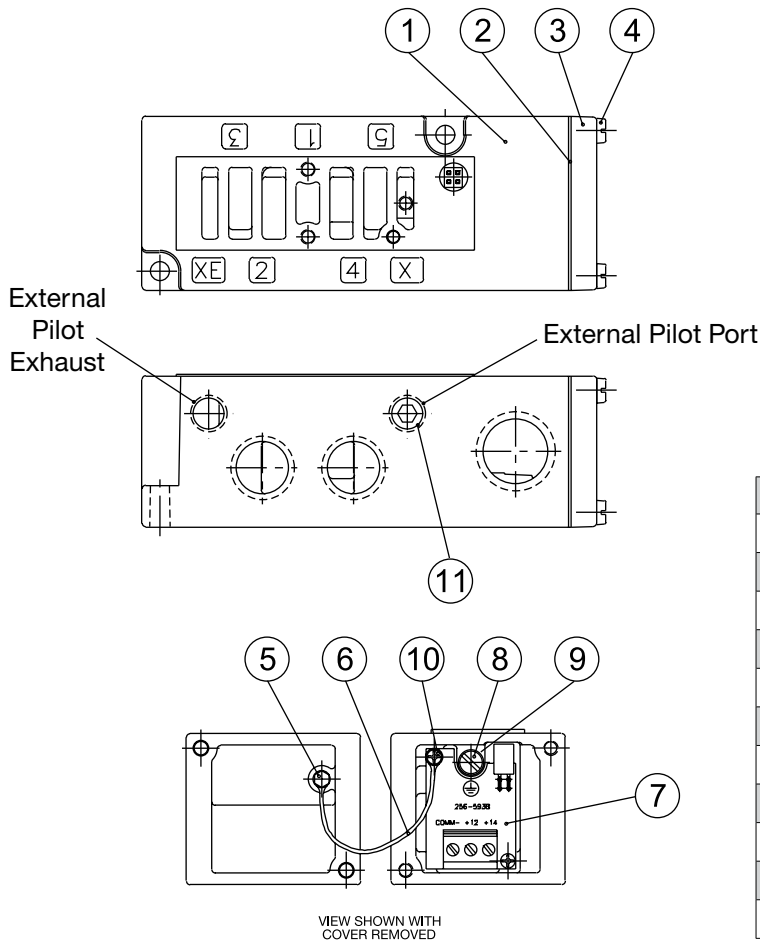


Port Size	Part No.
1/4-NPTF	203-1100
3/8 NPTF	203-1101
1/4 G	203-1137
3/8 G	203-1138

Internal/External Pilot Selection



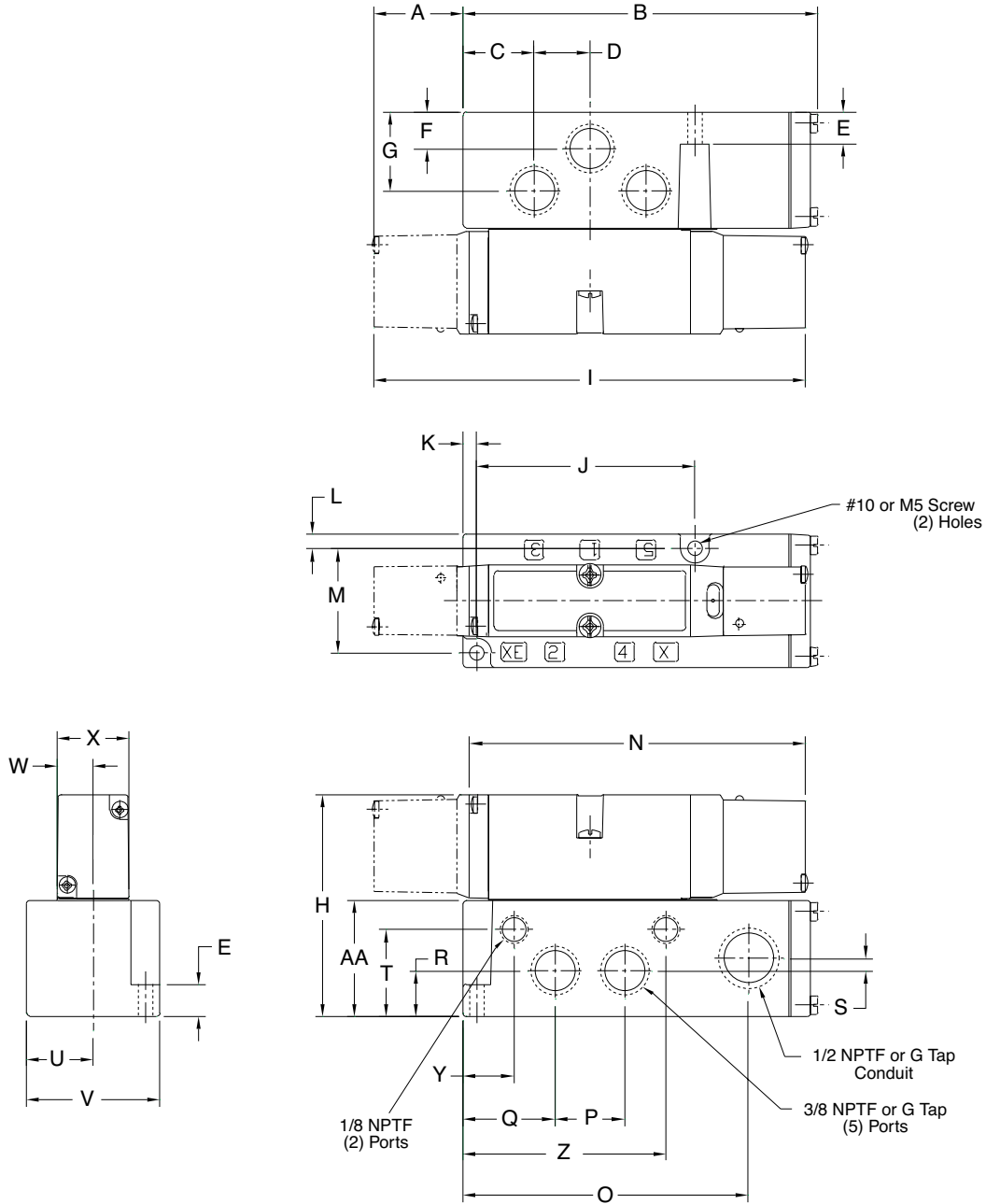
NOTE: Base assemblies are supplied set up for internal pilot supply. To convert to external pilot supply install plug P.N. 127-691 (sold separately) in the "X" gallery as indicated above. Remove the 1/8 NPTF pipe plug from the "X" port to supply pilot pressure.



Det. No.	No. Req'd	Part Name	Part No.
1	1	Base (not sold separately)	
2	1	Gasket	113-528
3	1	Cover	105-397
4	2	Screw	127-850
5	1	Screw	127-172
6	1	Strap	125-772
7	1	Terminal Strip Ass'y	256-593
8	1	Screw	127-176
9	1	Washer	128-162
10	2	Screw	127-318
11	1	1/8 NPTF Pipe Plug	129-100

Valve on Individual Base

Dimensions: Inches (mm)



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1.27 (32.3)	5.14 (130.6)	1.03 (26.3)	0.81 (20.6)	0.46 (11.7)	0.53 (13.5)	1.14 (29.0)	3.21 (81.5)	6.26 (159.0)	3.16 (80.3)	0.20 (5.1)	0.21 (5.3)	1.51 (38.4)	5.00 (127.0)	4.14 (105.2)

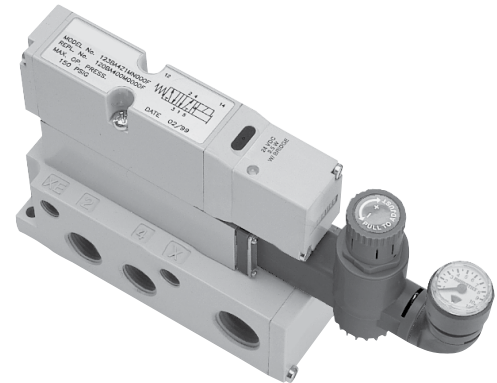
P	Q	R	S	T	U	V	W	X	Y	Z	AA
1.00 (25.4)	1.33 (33.8)	0.65 (16.5)	0.18 (4.6)	1.25 (31.8)	0.97 (24.6)	1.93 (49.0)	0.52 (13.2)	1.04 (26.4)	0.74 (18.8)	2.94 (74.7)	1.67 (42.4)

Sandwich Pressure Regulators

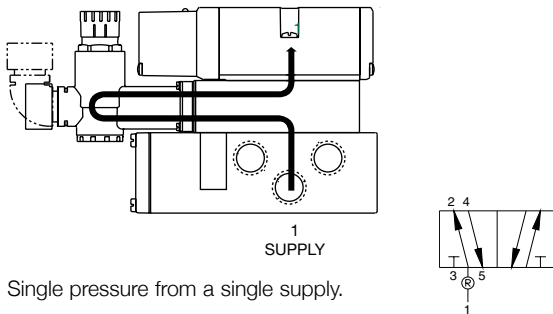
Types: RS / RD / RC / RQ / RE / RT

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

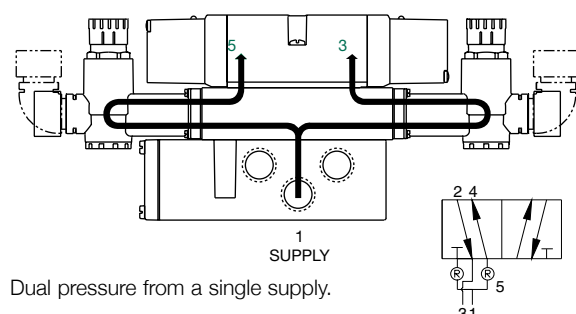
Example orders:	Type RS	Type RD
Valve unit only:	122BA400K000030	122BB400M000061
Regulator	122RS1Z1JN00000	122RD1Z2JN00000
+mounting	ASSEMBLED	ASSEMBLED



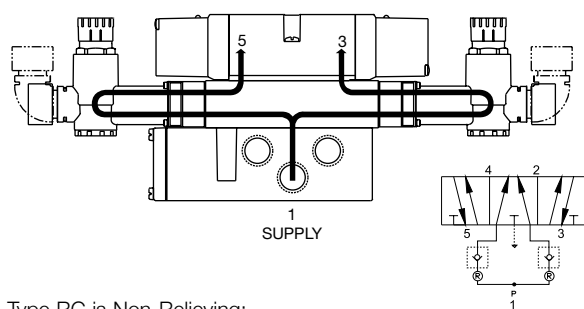
Type RS



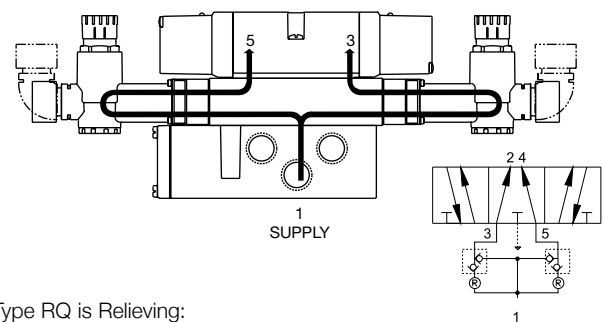
Type RD



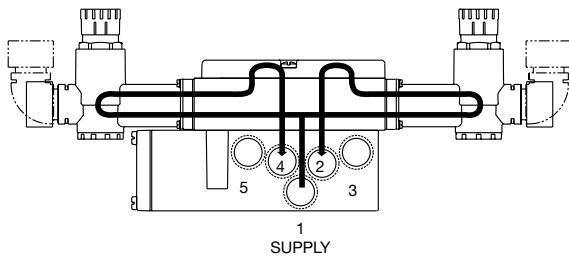
Type RC



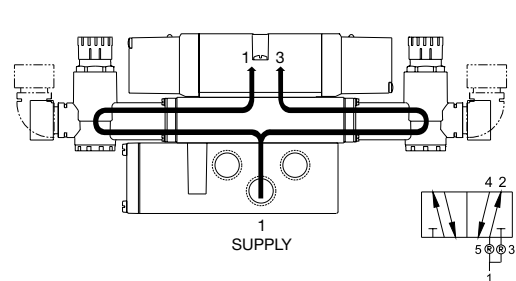
Type RQ



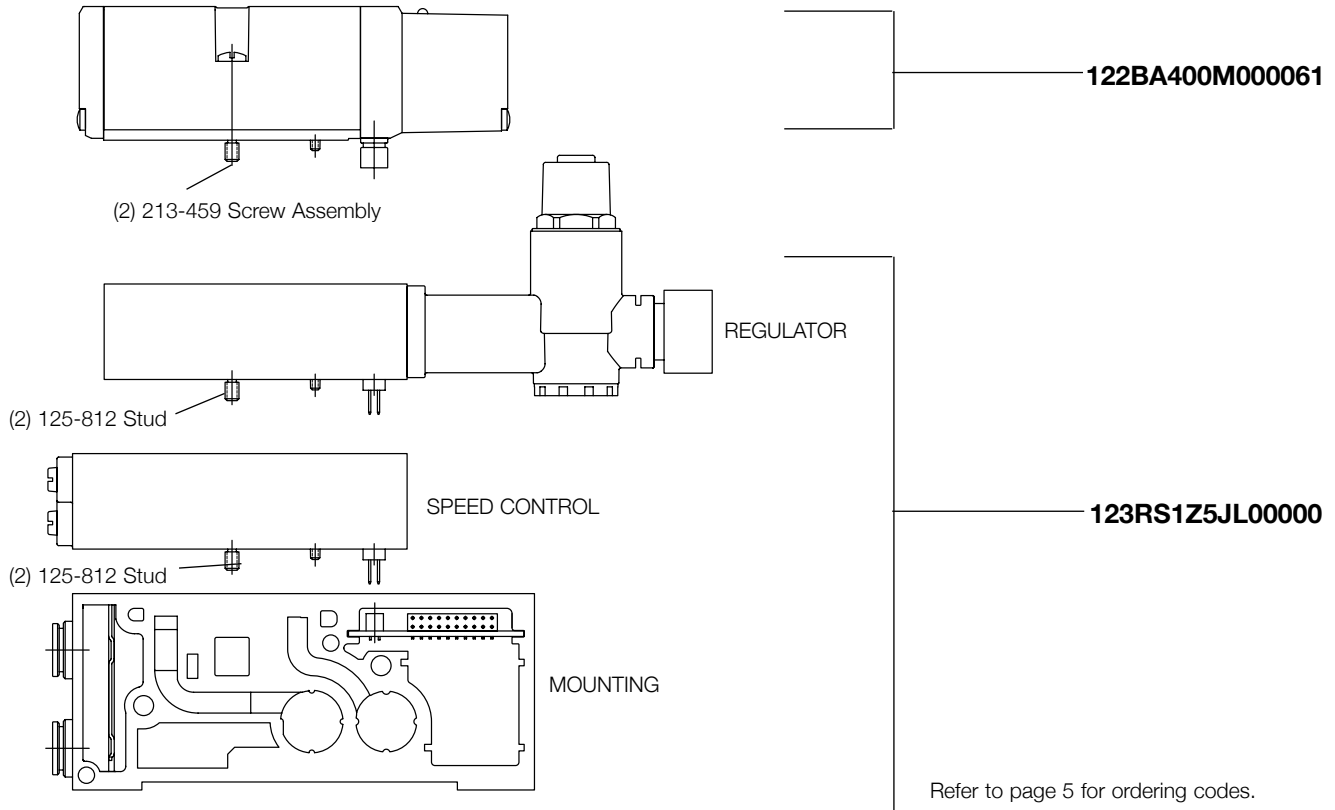
Type RE



Type RT



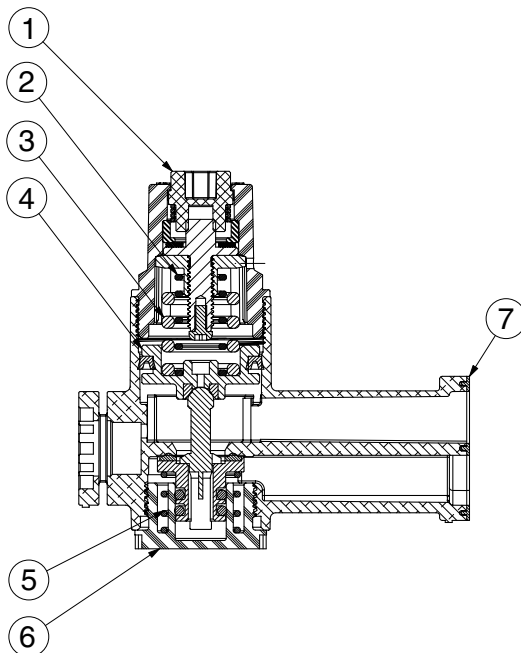
Valve Regulator / Speed Control Plug-in Assembly



Regulator Kits and Service Parts

Regulator Service Kit

239-1393



Regulator Unit Kits

(includes regulator assembly, gaskets, screws)

PSIG	Part No.
3-30 PSIG	239-1909
5-60 PSIG	239-1910
10-130 PSIG	239-1911

Bonnet Springs

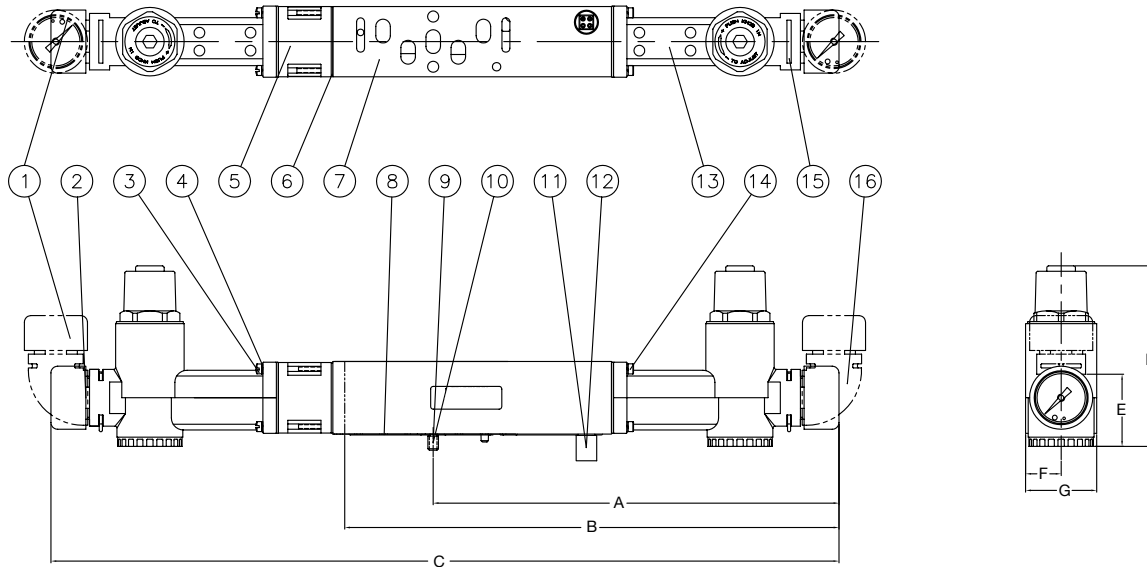
PSIG	Part No.
3-30 PSIG	115-423
5-60 PSIG	115-425
10-130 PSIG*	115-423
	115-424

* = Both Springs Required

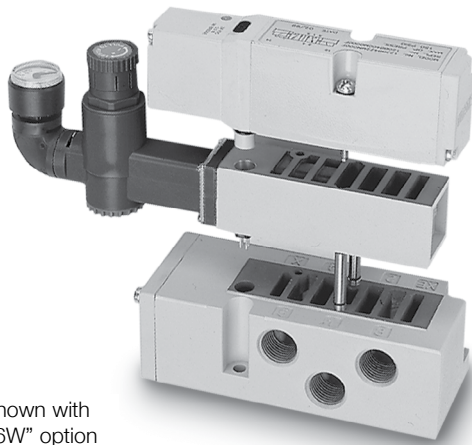
Det. No.	No. Req'd	Part Name
1	1	Bonnet
2	1	Spring
3	1	Spring
4	1	Piston Assembly
5	1	Spring
6	1	Cap
7	1	Gasket

Sandwich Pressure Regulator

Dimensions: Inches (mm)



A	B	C	D	E	F	G
5.48 (139.2)	6.94 (176.3)	10.97 (278.6)	2.7 (68.6)	1.14 (29.0)	0.52 (13.2)	1.04 (26.4)



Shown with
"16W" option
(90° elbow)

Gauge Kit

160 PSI	11 Bar Max	60 PSI	4 Bar Max
214-214	214-215	214-219	214-220

Elbow Kit

239-1217

Gauge Adaptor Kit 1/8 NPTF

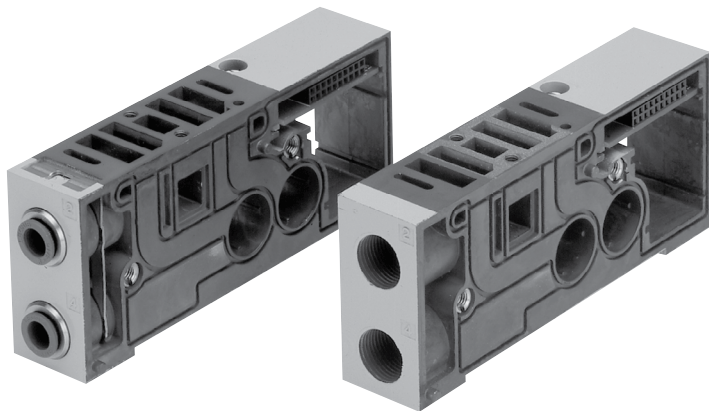
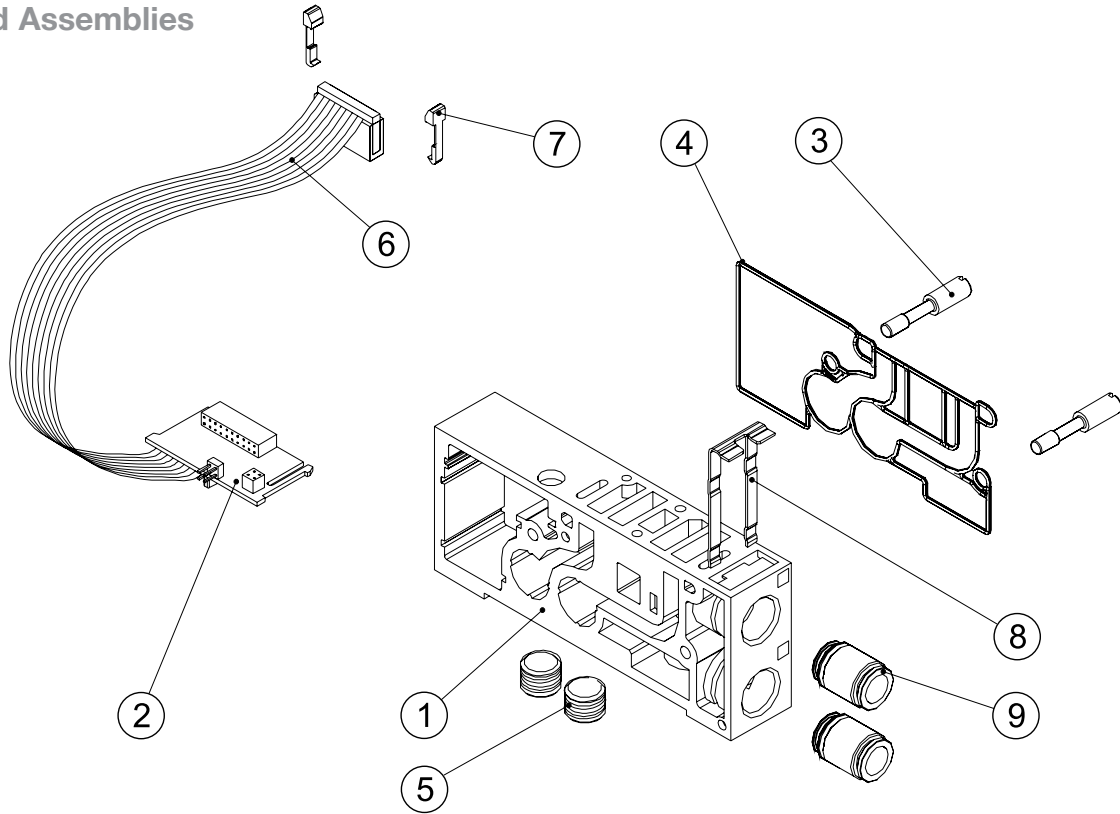
239-1561

Parts List

Det. No.	No. Req'd	Part Name	Part No.
1	2*	Regulator	See p. 9
2	1	Single riser block	125-798
2	1	Double riser block	125-799
3	2	O-Ring	126-528
4	2	Stud	125-812
5	1	Screw	127-318
6	1	Plug-Assembly	230-904
7	2*	Gauge 160 PSI max.	214-212
7	2*	Gauge 11 bar max.	214-213
7	2*	Gauge 60 PSI max.	214-217
7	2*	Gauge 4 bar max.	214-218
8	2*	Elbow	134-505
9	4**	Pin	131-236
10	4**	O-Ring	126-105
12	8***	Screw	127-960
13	8***	Lockwasher	128-172
14	2*	Gasket	113-535
15	1	Gasket	113-534
16	1	Gasket for RT Regulator	113-565

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

Manifold Assemblies

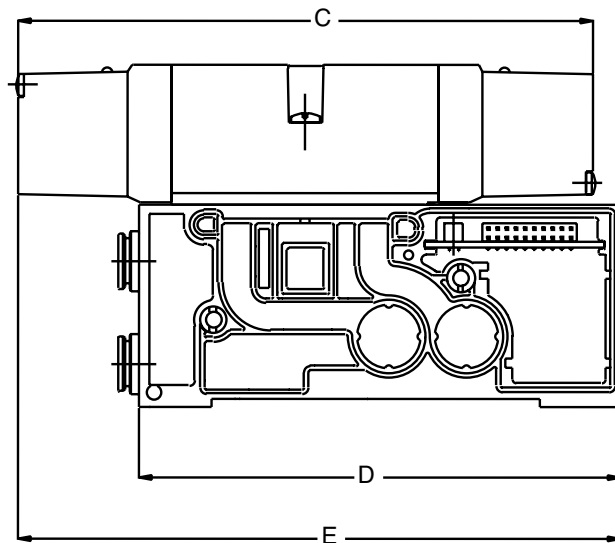
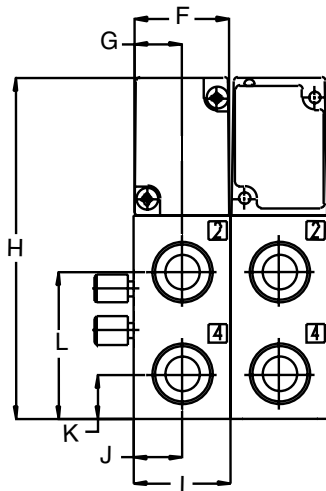
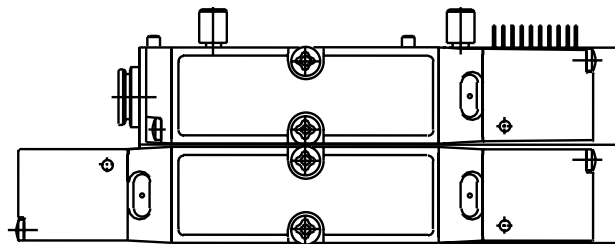
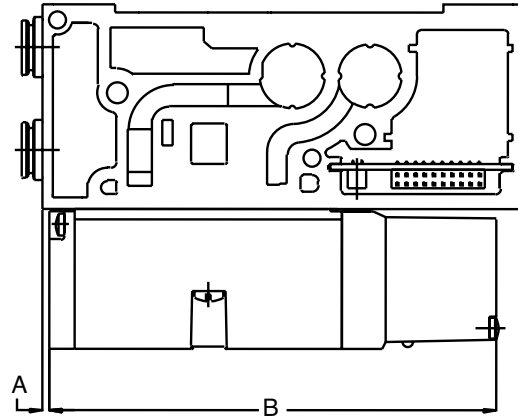


Det. No.	No. Req'd	Part Name	Part No.
1	1	Manifold Block (not sold separately)	
2*	1	"Z-Board"™	not sold separately
3	2	Stud	125-813
4	1	Gasket	113-537
5	2	Pipe Plug, 1/4 NPTF	129-101
5	2	Pipe Plug, 1/4 G	129-161
6	1	Ribbon Cable Ass'y	230-905
7	2	Snap In Latch	140-721
8	1	Retaining Clip	125-751
9	2	Push-in Fitting	See p. 16

Manifold Assembly Kits								
Side Cylinder Ports	1/4 NPTF	3/8 NPTF	G 1/4	G 3/8	1/4 Push-in	3/8 Push-in	8mm Push-in	10mm Push-in
Bottom Cylinder Ports	1/4 NPTF	1/4 NPTF	G 1/4	G 1/4	1/4 NPTF	1/4 NPTF	G 1/4	G 1/4
Single "Z-Board"™	206-1272	206-1271	206-1256	206-1255	206-1273	206-1274	206-1257	206-1258
Double "Z-Board"™	206-1280	206-1279	206-1264	206-1263	206-1281	206-1282	206-1265	206-1266
Single "Z-Board"™ w/Ribbon Cable	206-1276	206-1275	206-1260	206-1259	206-1277	206-1278	206-1261	206-1262
Double "Z-Board"™ w/Ribbon Cable	206-1284	206-1283	206-1268	206-1267	206-1285	206-1286	206-1269	206-1270

Dimensions: Inches (mm)

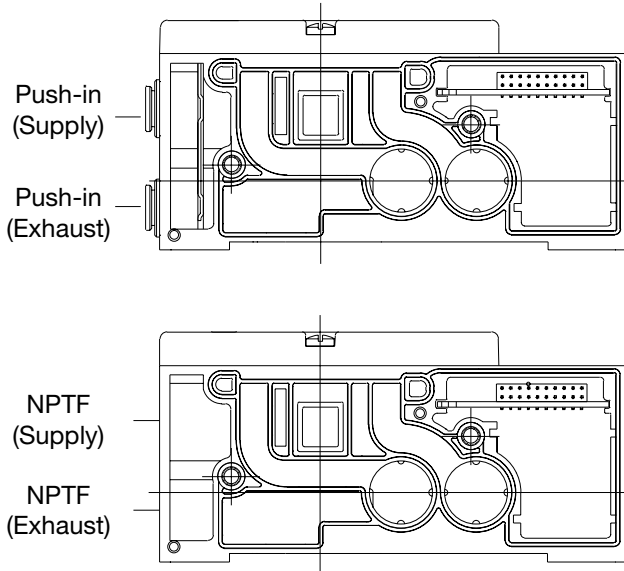
Valve on Manifold Block



A	B	C	D	E	F	G	H	I	J	K	L
0.07 (1.8)	4.87 (123.7)	6.26 (159.0)	5.25 (133.3)	6.57 (166.9)	1.04 (26.4)	0.52 (13.2)	3.72 (94.5)	1.06 (27.0)	0.55 (14.0)	0.47 (11.9)	1.59 (40.4)



Mid-Station Supply and Exhaust Block



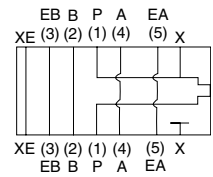
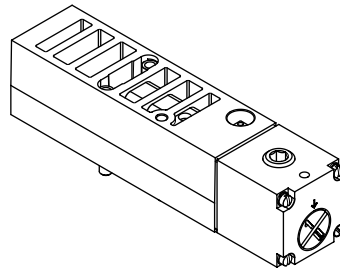
Mid-Station Supply & Exhaust Block Kits

	Part. No.
NPTF 3/8	239-1330
G 3/8	239-1331
3/8 Push-in	239-1332
10mm Push-in	239-1333

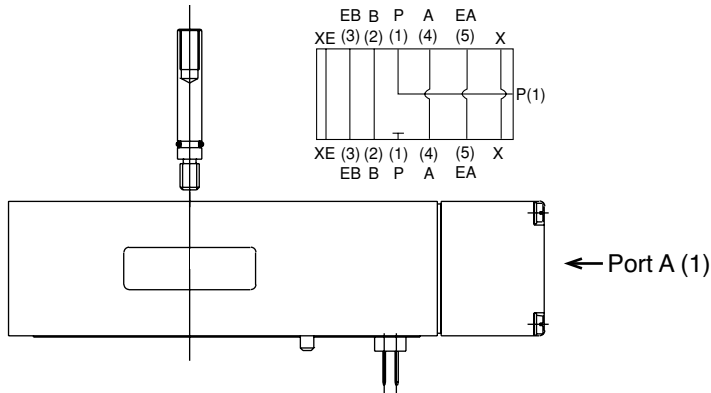
Sandwich Shut Off Block

239-2236

- Used to shut-off pressure to the valve which is mounted above it.
- Allows easy maintenance without the need to shut-off pressure to the whole manifold.



Sandwich Pressure Block

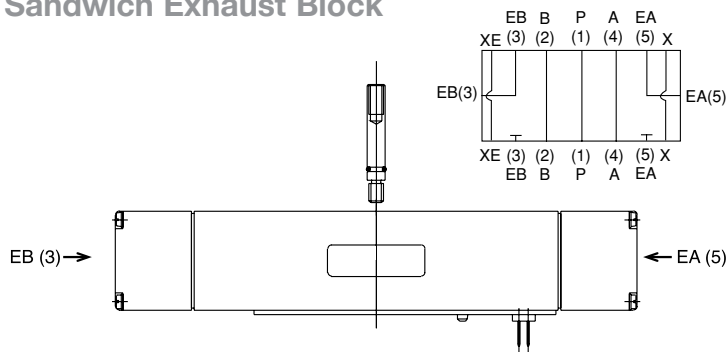


- Used to supply a separate pressure to a single valve station without needing blocking disks.

Sandwich Pressure Block Kit

Port Type	Part. No.
NPTF 1/4	239-1422
G 1/4	239-1436

Sandwich Exhaust Block

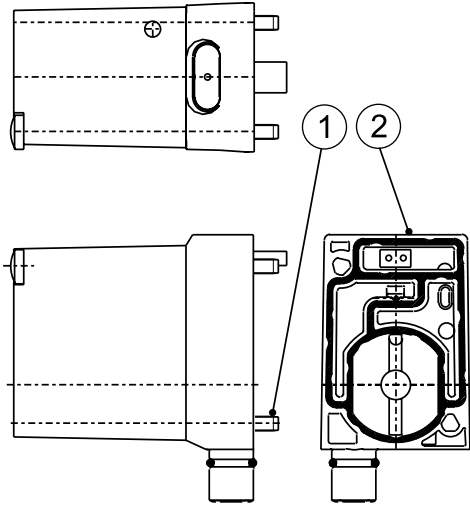


- Used to isolate the exhaust of a single valve station from the manifold.
- Allows faster exhaust response by re-routing.
- Exhaust externally to the manifold.

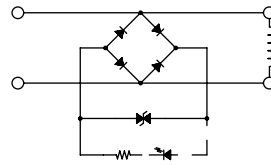
Sandwich Pressure Block Kit

Port Type	Part. No.
NPTF 1/4	239-1554
G 1/4	239-1556

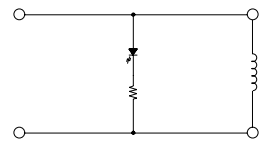
Solenoid Pilot Assembly



Description	12 VDC	24 VDC	24 VAC	120 VAC
14 end, push non-locking override	236-417	236-356	237-1070	237-1079
12 end, push non-locking override	236-418	236-357	237-1071	237-1080
14 end, turn & lock override	236-420	236-359	237-1073	237-1082
12 end, turn & lock override	236-421	236-360	237-1074	237-1083
14 end, no override	236-423	236-362	237-1076	237-1085
12 end, no override	236-424	236-363	237-1077	237-1086



DC Solenoid
Circuit Diagram

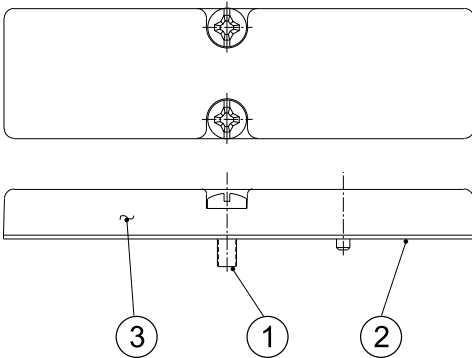


AC Solenoid
Circuit Diagram

Det. No.	No. Req'd	Part Name	Part No.
1	1	Gasket	113-373
2	2	Screw	127-823

Blank Station Plate Kit

239-1390

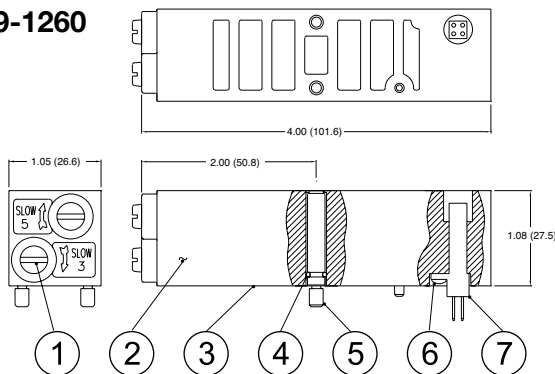


- Used to block off a manifold station block for future use

Det. No.	No. Req'd	Part Name	Part No.
1	2	Screw	127-876
2	1	Gasket	113-534
3	1	Blank Station Plate	104-726

Speed Control Kit

239-1260



Det. No.	No. Req'd	Part Name	Part No.
1	2	Metering Screw	118-178
Not Shown	2	Nylon Rod	125-131
2	1	Speed Control Body	119-632
3	1	Gasket	113-534
4	2	O-Ring	126-528
5	2	Stud	125-812
6	1	Screw	127-318
7	1	Plug Assembly	230-904

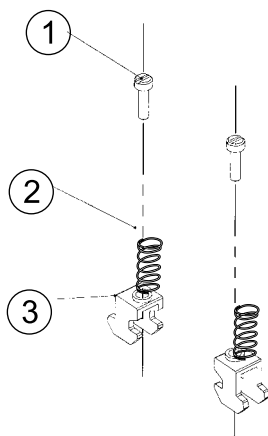
Interchangeable Push-in Cartridge Fittings



Ports	Size	Type	Part No.
1, 2, 4	1/4"	Push-In	134-506
1, 2, 4	3/8"	Push-In	134-508
1, 2, 4	8mm	Push-In	134-507
1, 2, 4	10mm	Push-In	134-509
1, 2, 4	N/A	Plug Ass'y	239-1190
3/5	3/8"	Push-In	134-510
3/5	1/2"	Push-In	134-512
3/5	12mm	Push-In	134-511
3/5	14mm	Push-In	134-513
3/5	N/A	Plug Ass'y	239-1191
X, XE	4mm	Push-In	134-498
X, XE	6mm	Push-In	134-499
X, XE	1/4"	Push-In	134-518
X, XE	N/A	Plug Ass'y	239-1086

DIN Rail Clamp Kit

239-980



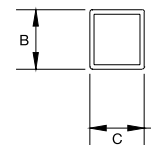
Det. No.	No. Req'd	Part Name	Part No.
1	4	Screw	127-472
2	4	Spring	115-355
3	4	Clamp	125-720

Blocking Discs

Port 3/5



Port 1

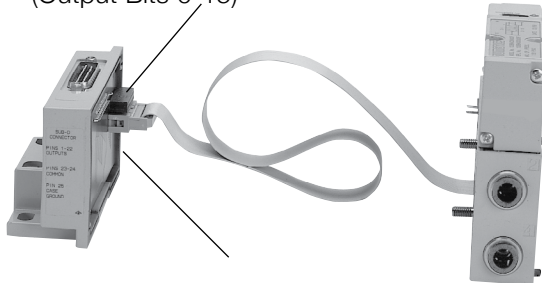


Det. No.	Part No.	A	B	C
1	124-341	N/A	0.54 (13.7)	0.50 (12.6)
3/5	239-907	0.70 (17.8)	N/A	N/A



Ribbon Cable Assembly Kit 239-1336

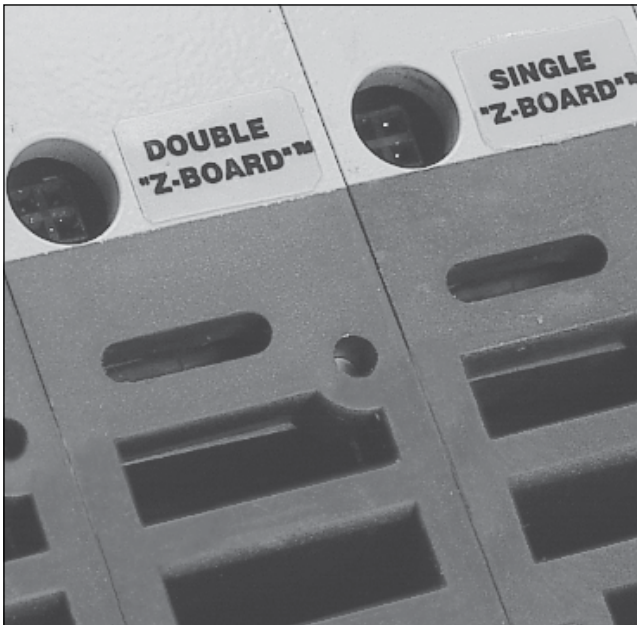
Solenoid 1-16 Output Connector
(Output Bits 0-15)



Solenoid 17-32 Output Connector
(Output Bits 16-31)

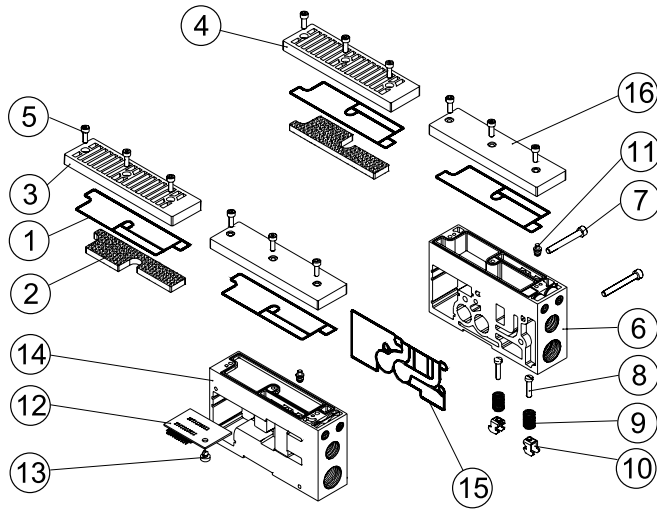
No. Req'd	Part Name	Part No.
1	Replacement Ribbon Cable Assembly	230-905
2	Replacement Snap In Latch	140-721

Ribbon cable option used for manifold assemblies that exceed 16 solenoid outputs.



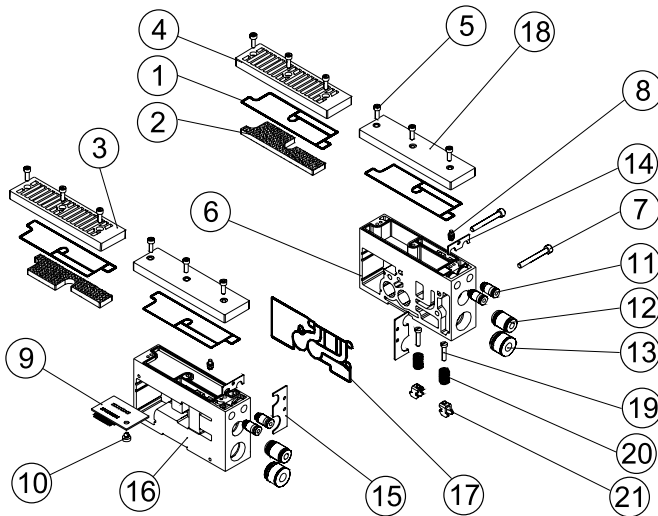
Label on manifold block indicates Installed "Z-Board"™ type.

End Plate Kit - Threaded



Det. No.	No. Req'd	Part Name	Part No.
1	2	Cover Gasket	113-536
2	2	Muffler (Optional)	125-851
3	1	LH Endplate Cover Vented (Optional)	005-193
4	1	RH Endplate Cover Vented (Optional)	005-194
5	6	Screw	127-368
6	1	RH Endplate	104-713
7	2	Screw	127-413
8	2	Screw (DIN Rail Only)	127-472
9	2	Spring (DIN Rail Only)	115-355
10	2	Clamp (DIN Rail Only)	125-720
11	2	Pilot Plug Ass'y	213-497
12	1	Transfer Conn. Board Ass'y	256-644
13	1	Retention Pin	125-845
14	1	LH Endplate	104-710
15	1	Gasket	113-537
16	2	End Plate Cover	105-400

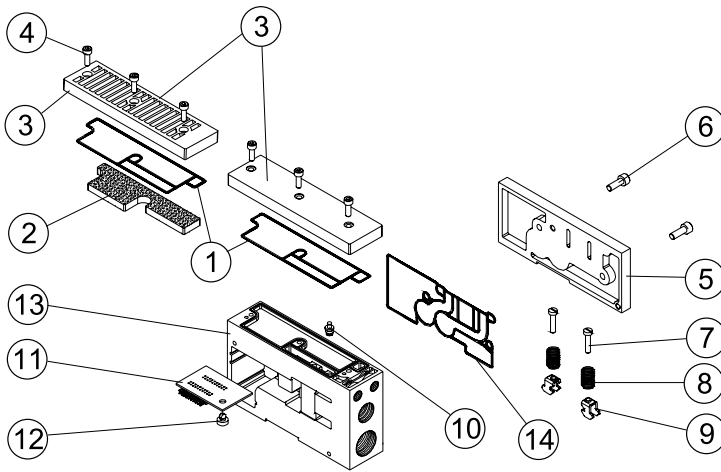
End Plate Kit - Push-in



Det. No.	No. Req'd	Part Name	Part No.
1	2	Cover Gasket	113-536
2	2	Muffler (Optional)	125-851
3	1	LH Endplate Cover Vented (Optional)	005-193
4	1	RH Endplate Cover Vented (Optional)	005-194
5	6	Screw	127-368
6	1	RH Endplate	104-712
7	2	Screw	127-413
8	2	Pilot Plug Ass'y	213-497
9	1	Transfer Conn. Board Ass'y	256-644
10	1	Retention Pin	125-845
11	4	Push-in Fittings	See p. 16
12	2	Push-in Fittings	See p. 16
13	2	Push-in Fittings	See p. 16
14	2	Retaining Clip (Small)	125-814
15	2	Retaining Clip (Large)	125-815
16	1	LH Endplate (NPTF)	104-709
17	1	Gasket	113-537
18	2	End Plate Cover	105-400
19	2	Screw (DIN Rail Only)	127-472
20	2	Spring (DIN Rail Only)	115-355
21	2	Clamp (DIN Rail Only)	125-720

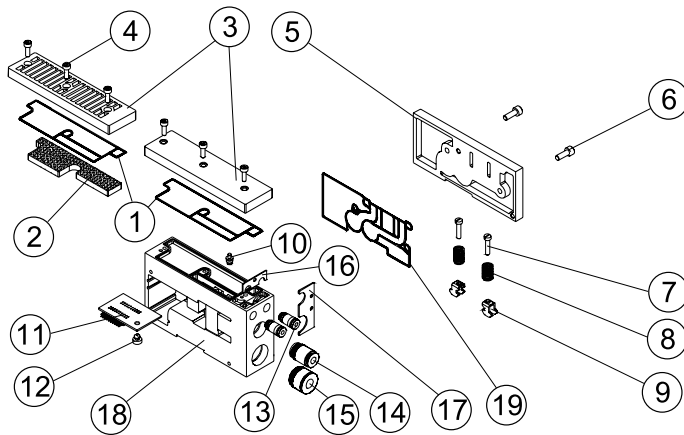
Port Type	NPTF			ISO228/1-G			Push-In			Push-In			Push-In			Push-In		
	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE
PORT																		
PORT SIZE	3/8	1/2	1/8	3/8	1/2	1/8	1/4	3/8	1/4	3/8	1/2	1/4	8mm	12mm	6mm	10mm	14mm	6mm
Kit w/o muffler, w/o DIN Rail	239-1236			239-1240			239-1247			239-1248			239-1255			239-1256		
Kit w/o muffler, w/ DIN Rail	239-1235			239-1239			239-1245			239-1246			239-1253			239-1254		
Kit w/ muffler, w/o DIN Rail	239-1234			239-1238			239-1243			239-1244			239-1251			239-1252		
Kit w/ muffler, w/ DIN Rail	239-1233			239-1237			239-1241			239-1242			239-1249			239-1250		

End Plate Kit with LH Ports Only - Threaded



Det. No.	No. Req'd	Part Name	Part No.
1	1	Cover Gasket	113-536
2	1	Muffer (Optional)	125-851
3	1	LH Endplate Cover Vented (Optional)	005-193
3	1	LH Endplate Cover	105-400
4	3	Screw	127-368
5	1	RH Portless Endplate	105-423
6	2	Screw	127-407
7	2	Screw (DIN Rail Only)	127-472
8	4	Spring (DIN Rail Only)	115-355
9	4	Clamp (DIN Rail Only)	125-720
10	1	Pilot Plug Ass'y	213-497
11	1	Transfer Conn. Board Ass'y	256-644
12	1	Retention Pin	125-845
13	1	LH Endplate (NPTF)	104-710
13	1	LH Endplate (G)	104-711
14	1	Gasket	113-537

End Plate Kit with LH Ports Only - Push-in

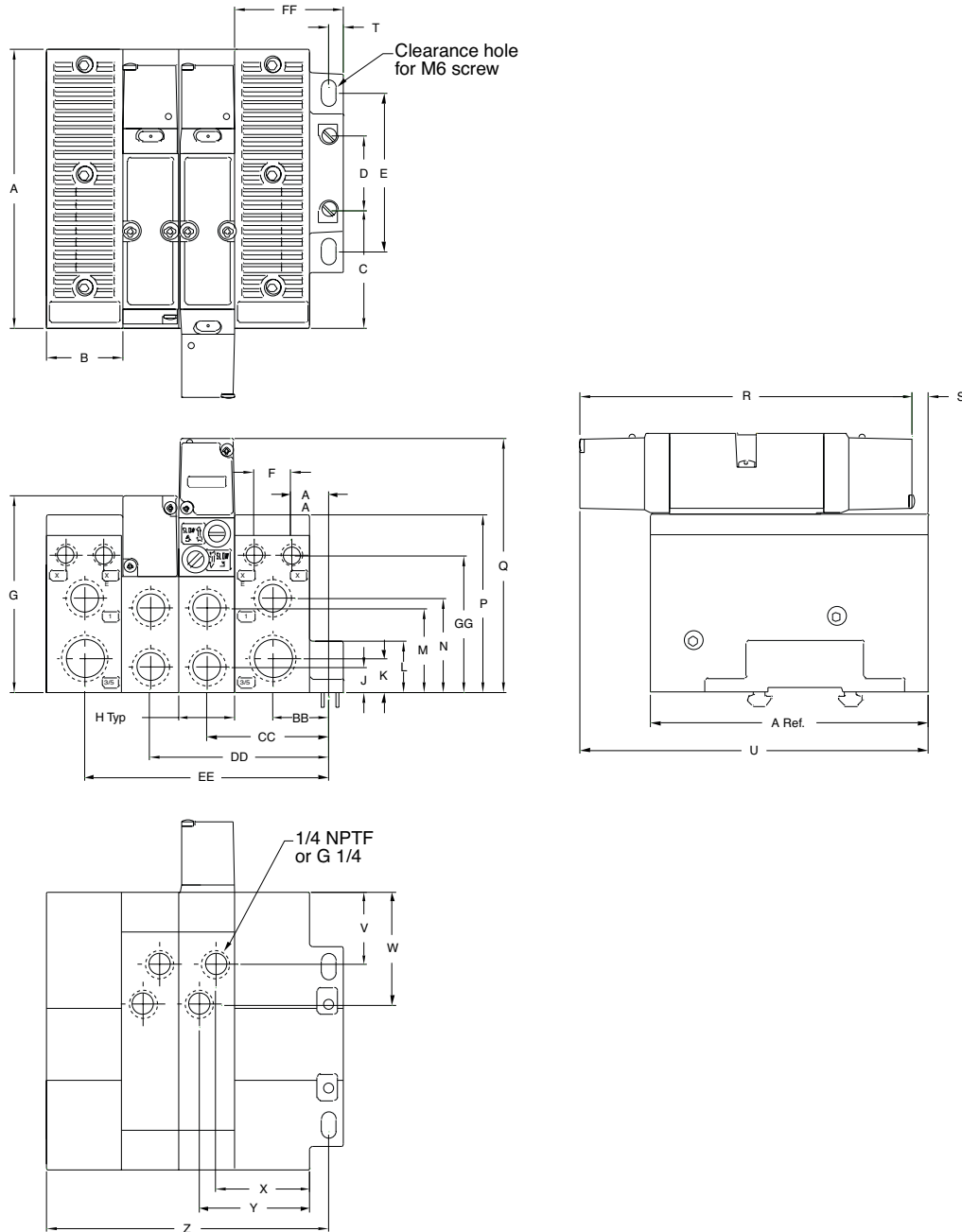


Det. No.	No. Req'd	Part Name	Part No.
1	1	Gasket	113-536
2	1	Muffer (Optional)	125-851
3	1	LH Endplate Cover (Muffer Option)	005-193
3	1	LH Endplate Cover	105-400
4	3	Screw	127-368
5	1	RH Portless Endplate	105-423
6	2	Screw	127-407
7	2	Screw (DIN Rail Only)	127-472
8	4	Spring (DIN Rail Only)	115-355
9	4	Clamp (DIN Rail Only)	125-720
10	1	Pilot Plug Ass'y	213-497
11	1	Transfer Conn. Board Ass'y	256-644
12	1	Retention Pin	125-845
13	2	Push-in Fittings	See p. 16
14	1	Push-in Fittings	See p. 16
15	1	Push-in Fittings	See p. 16
16	1	Retaining Clip (Small)	125-814
17	1	Retaining Clip (Large)	125-815
18	1	LH Endplate (NPTF)	104-709
19	1	Gasket	113-537

Port Type	NPTF			ISO228/1-G			Push-In			Push-In			Push-In			Push-In		
	Port	3/8	1/2	X, XE	1	3/8	1/2	X, XE	1	3/8	1/2	X, XE	1	3/8	1/2	X, XE	1	3/8
Port Size	3/8	1/2	1/8	3/8	1/2	1/8	1/4	3/8	1/4	3/8	1/2	1/4	8mm	12mm	6mm	10mm	14mm	6mm
LH Ports Only Kit w/o muffer, w/o DIN Rail	239-1688			239-1692			239-1699			239-1700			239-1707			239-1708		
LH Ports Only Kit w/o muffer, w/ DIN Rail	239-1687			239-1691			239-1697			239-1698			239-1705			239-1706		
LH Ports Only Kit w/ muffer, w/o DIN Rail	239-1686			239-1690			239-1695			239-1696			239-1703			239-1704		
LH Ports Only Kit w/ muffer, w/ DIN Rail	239-1685			239-1689			239-1693			239-1694			239-1701			239-1702		

Manifold Assembly

Dimensions: Inches (mm)



NOTE:

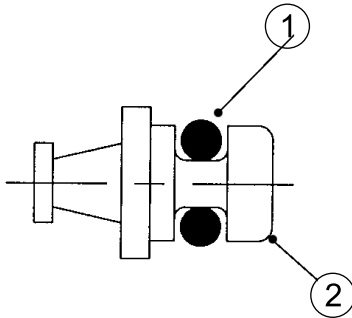
- For Electrical Interface option dimensions see Electronics section.
- For Fieldbus Electronics dimensions see Electronics section.

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
5.25 (133.3)	1.42 (36.0)	2.16 (55.0)	1.50 (38.1)	3.02 (76.8)	0.71 (18.0)	3.71 (94.3)	1.06 (27.0)	0.47 (12.1)	0.63 (16.0)	0.97 (24.5)	1.59 (40.3)	1.77 (45.0)	3.35 (85.0)	4.80 (121.9)	6.26 (159.0)	0.30 (7.6)	0.29 (7.4)
U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG					
6.56 (166.6)	1.42 (36.1)	2.12 (53.8)	1.78 (45.2)	2.10 (53.3)	5.30 (134.6)	0.70 (17.8)	1.05 (26.7)	2.29 (58.2)	3.35 (85.1)	4.55 (115.6)	2.05 (52.0)	2.57 (65.4)					



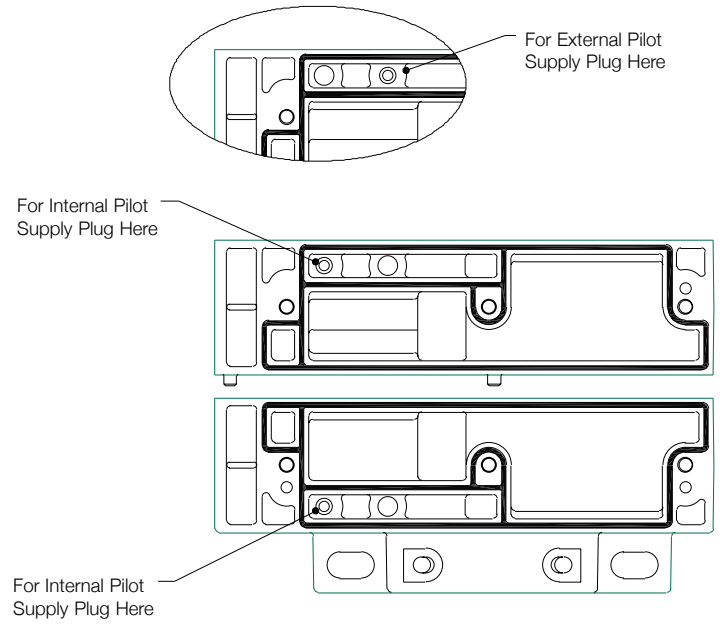
Internal Pilot Plug

213-497



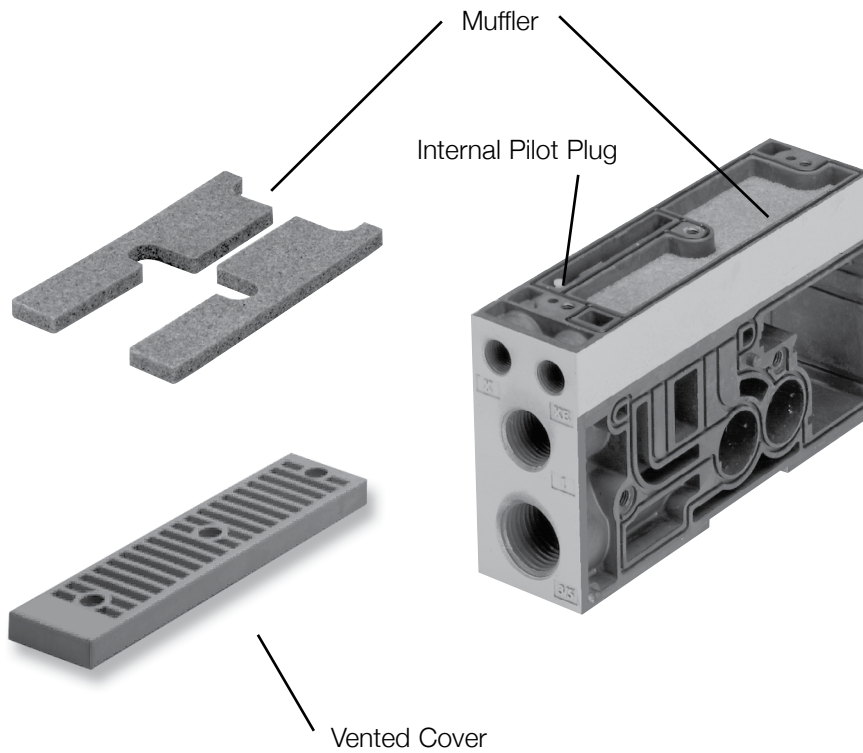
Det. No.	No. Req'd	Part Name	Part No.
1	1	Plug	125-820
2	1	O-Ring	126-471

Internal/External Pilot Selection



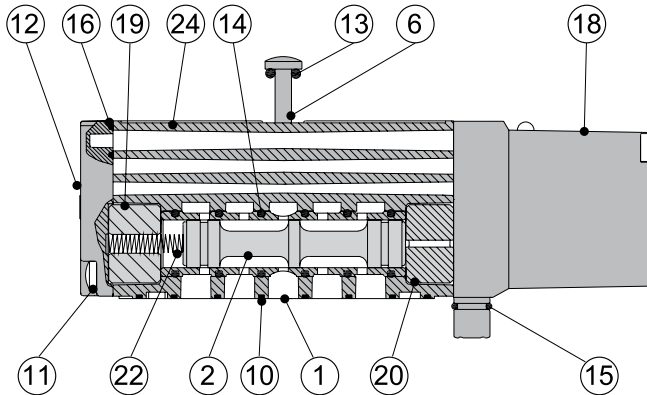
Internal Muffler

125-851



Valve Service Kits and Parts

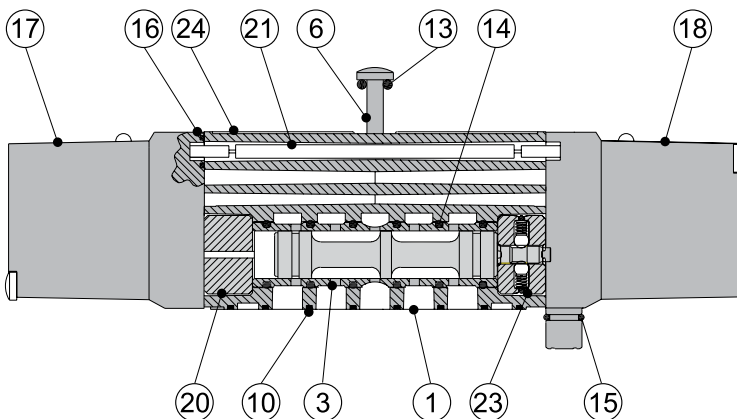
Kit No. 2012-K1*
(For Models 122BA4, 123BA4, 12HBA4, 12KBA4)



Det. No.	BA4	BB4	Part Name	Part No.
1	1	1	Body (not sold separately)	
2	1	N/A	Spool & Sleeve Assembly	209-517
3	N/A	1	Spool & Sleeve Assembly	209-518
6	2	2	Screw Assembly	213-459
10*	1	1	Gasket Body/Manifold	113-370
11	2	N/A	Screw	127-650
12	1	N/A	Spring Cap	104-673
13*	2	2	O-Ring	126-163
14*	6	6	O-Ring	126-395
15*	1	1	O-Ring	126-144
16*	2	2	Gasket Adaptor/Body	113-373
17	N/A	1	Solenoid Pilot - 12 End	See p. 15
18	1	1	Solenoid Pilot - 14 End	See p. 15
19*	1	N/A	Bumper 12 End	114-154
20*	1	N/A	Bumper 14 End	114-153
21	N/A	1	14-12 Recepticle	230-915
22*	1	N/A	Spring	115-271
23*	N/A	1	Detent Assembly	210-128
24	1	1	Nameplate	122-1074

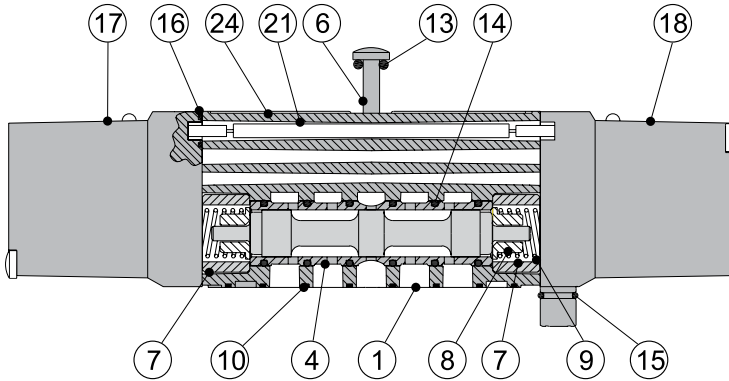
*Indicates parts included in service kit.

Kit No. 2012-K2*
(For Models 122BB4, 123BB4, 12HBB4, 12KBB4)



Valve Service Kits and Parts

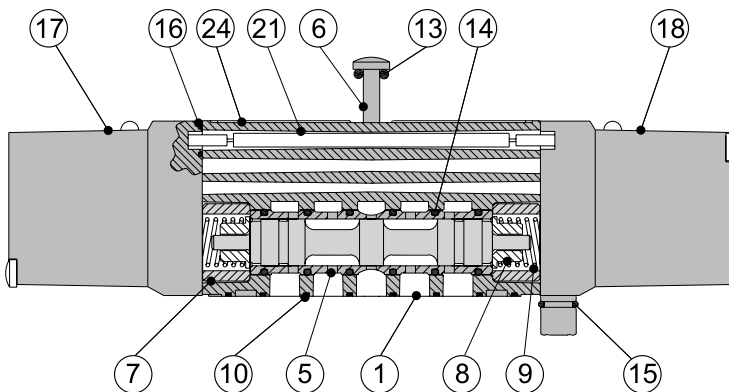
Kit No. 2012-K3*
(For Models 122BB5, 123BB5, 12HBB5, 12KBB5)



Det. No.	BB5	BB6	Part Name	Part No.
1	1	1	Body (not sold separately)	
4	1	N/A	Spool & Sleeve Assembly	209-519
5	N/A	1	Spool & Sleeve Assembly	209-520
6	2	2	Screw Assembly	213-459
7*	2	2	Bushing	117-174
8*	2	2-	Spring Retainer	116-464
9*	2	2	Return Spring	115-284
10*	1	1	Gasket Body/Manifold	113-370
13*	2	2	O-Ring	126-163
14*	6	6	O-Ring	126-395
15*	1	1	O-Ring	126-144
16*	2	2	Gasket Adaptor/Body	113-373
17	1	1	Solenoid Pilot - 12 End	See p. 15
18	1	1	Solenoid Pilot - 14 End	See p. 15
21	1	1	14-12 Recepticle	230-915
24	1	1	Nameplate	122-1074

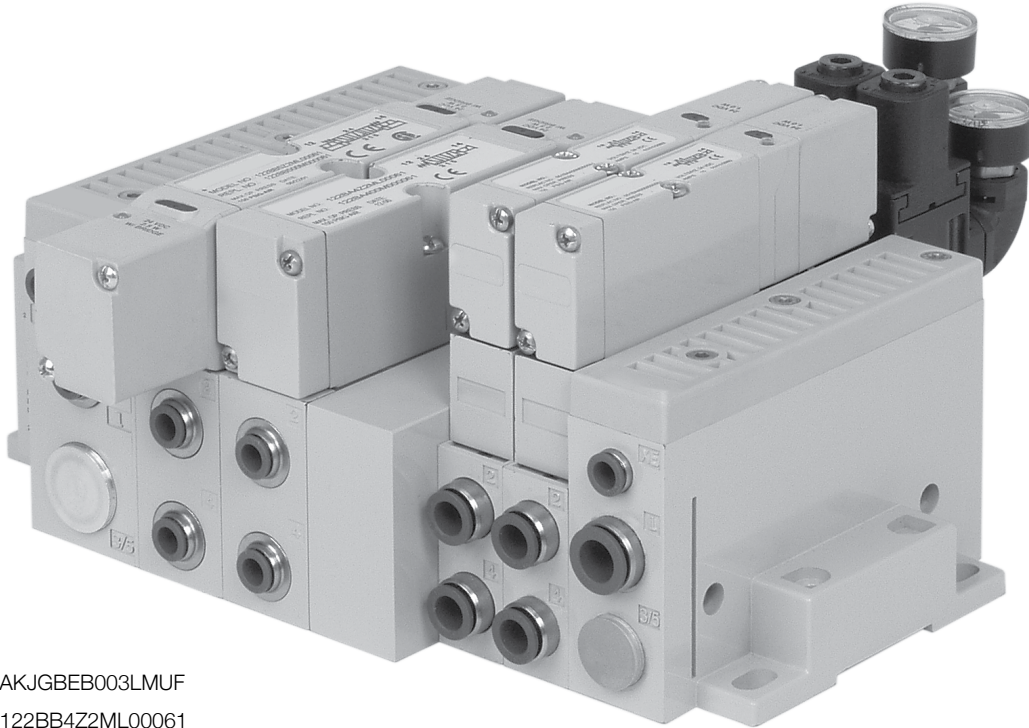
*Indicates parts included in service kit.

Kit No. 2012-K3*
(For Models 122BB6, 123BB6, 12HBB6, 12KBB6)



Adaptor Plate Kits 239-1965

This kit includes the adaptor plate, transfer board, gasket, screws, and studs. Individual end plates for the 2005 and 2012 are not included. This adaptor allows the transition from the 2012 to the 2005 series.



Example order

Adaptor Plate Kit AKJGBEB003LMUF
 122BB4Z2ML00061
 122BA4Z1ML00061
 053BA4Z1ML00061
 053BA4Z1ML00061
 ASSEMBLED

Adaptor Plate Kit with Standard End Plates (“STD” Option)

Description	Part No.
2005 with 3/8 NPTF - 2012 with 3/8 and 1/2 NPTF	239-2064
2005 with 3/8 G-Tap - 2012 with 3/8 and 1/2 G-Tap	239-2068
2005 with 3/8 Push-in - 2012 with 3/8 and 1/2 Push-in	239-2072
2005 with 10 mm Push-in - 2012 with 10 & 14 mm Push-in	239-2076

Adaptor Plate Kit with Standard End Plates and Muffler (“MUF” Option)

Description	Part No.
2005 with 3/8 NPTF - 2012 with 3/8 and 1/2 NPTF	239-2065
2005 with 3/8 G-Tap - 2012 with 3/8 and 1/2 G-Tap	239-2069
2005 with 3/8 Push-in - 2012 with 3/8 and 1/2 Push-in	239-2073
2005 with 10 mm Push-in - 2012 with 10 & 14 mm Push-in	239-2077

Adaptor Plate Kit with Standard End Plates and DIN Rail Mount (“DRM” Option)

Description	Part No.
2005 with 3/8 NPTF - 2012 with 3/8 and 1/2 NPTF	239-2066
2005 with 3/8 G-Tap - 2012 with 3/8 and 1/2 G-Tap	239-2070
2005 with 3/8 Push-in - 2012 with 3/8 and 1/2 Push-in	239-2074
2005 with 10 mm Push-in - 2012 with 10 & 14 mm Push-in	239-2078

Adaptor Plate Kit with Standard End Plates, Muffler and DIN Rail Mount (“DWM” Option)

Description	Part No.
2005 with 3/8 NPTF - 2012 with 3/8 and 1/2 NPTF	239-2067
2005 with 3/8 G-Tap - 2012 with 3/8 and 1/2 G-Tap	239-2071
2005 with 3/8 Push-in - 2012 with 3/8 and 1/2 Push-in	239-2075
2005 with 10 mm Push-in - 2012 with 10 & 14 mm Push-in	239-2079

Manifold Assembly How to Order

A K J G D O O 00 3 L STD

Electrical Connection Type & Location

3 = G3 Fieldbus Electronics
 F = Terminal Strip 1-16
 J = 25 Pin Sub-D
 M = 37 Pin Sub-D
 P = 12 Pin Round Connector
 Q = 19 Pin Round Connector
 R = 26 Pin Round Connector
 S = 26+ 12 Pin Round Connector
 T = Terminal Strip 1-32

Valve Series

G = 2012 Series

Number of Valve Stations*

A = 1	I = 9	Q = 17	Y = 25
B = 2	J = 10	R = 18	Z = 26
C = 3	K = 11	S = 19	2 = 27
D = 4	L = 12	T = 20	3 = 28
E = 5	M = 13	U = 21	4 = 29
F = 6	N = 14	V = 22	5 = 30
G = 7	O = 15	W = 23	6 = 31
H = 8	P = 16	X = 24	7 = 32

Valve Series

E = 2005 Series
 O = No Second Valve Series

Options

STD = Standard
 DRM = DIN Rail Mounting
 MUF = Muffler in End Plates
 DWM = DIN Rail with MUF
 A06 = End Plate with Ports on Left End Only, Mounting Plate Only on Right End
 D10 = A06 w/DIN Rail Mounting
 D11 = A06 w/Muffler in End Plates
 F05 = A06 w/DIN Rail with MUF
 14X = External Pilot

Port Type

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

End Plate Port Size 2012

3 = Port Type L, N or G
 Port 1 = 3/8Port 3/5 = 1/2
 2 = Port Type L only
 Port 1 = 1/4Port 3/5 = 3/8
 H = Port Type L only
 Port 1 = 8mm Port 3/5 = 12mm
 K = Port Type L only
 Port 1 = 10mm Port 3/5 = 14mm

Number of Valve Stations*

A = 1	I = 9	Q = 17	Y = 25
B = 2	J = 10	R = 18	Z = 26
C = 3	K = 11	S = 19	2 = 27
D = 4	L = 12	T = 20	3 = 28
E = 5	M = 13	U = 21	4 = 29
F = 6	N = 14	V = 22	5 = 30
G = 7	O = 15	W = 23	6 = 31
H = 8	P = 16	X = 24	7 = 32

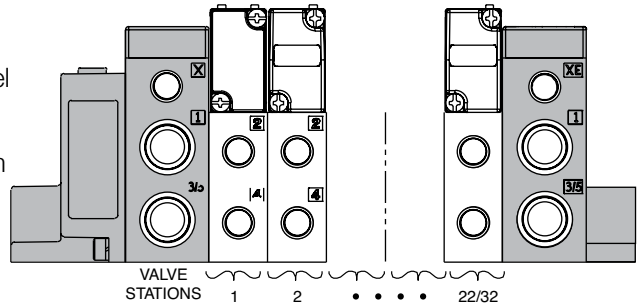
Maximum Solenoid Outputs

Terminal Strip		25 Pin Sub-D	37 Pin Sub-D	26 Pin Round	26 + 12 Pin Round	12 Pin Round	19 Pin Round
AK "F"	AK "T"	AK "J"	AK "M"	AK "R"	AK "S"	AK "P"	AK "Q"
16	32	22	32	22	32	8	16

- *NOTE: Maximum number of valve stations is determined by:
- The electrical connection type.
 - The valve type - single solenoid valves up to the maximum solenoid outputs allowed by the electrical connection type (see chart above) or a combination of single and/or double solenoid valves not to exceed the maximum number of solenoid outputs allowed.
 - Combination of all stations cannot exceed 32

AKJ or AKM 25 or 37 Pin Sub-D

- Shaded components described by Assembly Kit (AK) model number designation (see #1, page 21).
- 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: (2012)

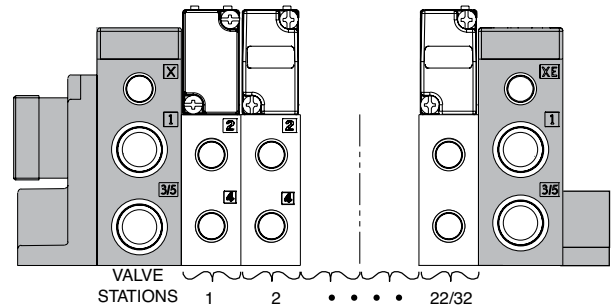
37 Pin Sub-D	AKMGD00003GMUF
valve station 1	123BA4Z1ML00061
valve station 2	123BA4Z1ML00061
valve station 3	123BB5Z2ML00061
valve station 4	123BB6Z2ML00061
	ASSEMBLED

AKP, AKQ, AKR or AKS 12, 19, 26 or 26+12 Pin Round Connector

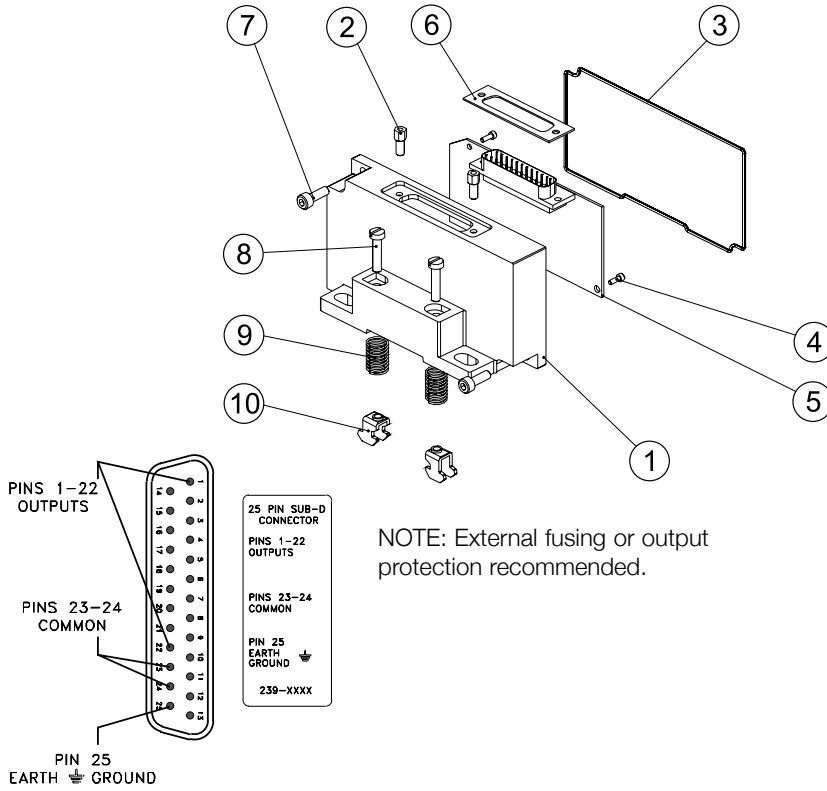
- Ordered using the same method as Sub-D:

Example order: (2012)

	AKRGH00003LDWM
valve station 1	123BA4Z1ML00061
valve station 2	123BA4Z1ML00061
valve station 3	123BA4Z1ML00061
valve station 4	123BB4Z6ML00061
valve station 5	123BB4Z6ML00061
valve station 6	123BB4Z6ML00061
valve station 7	123BB5Z6ML00061
valve station 8	123BB5Z6ML00061
	ASSEMBLED



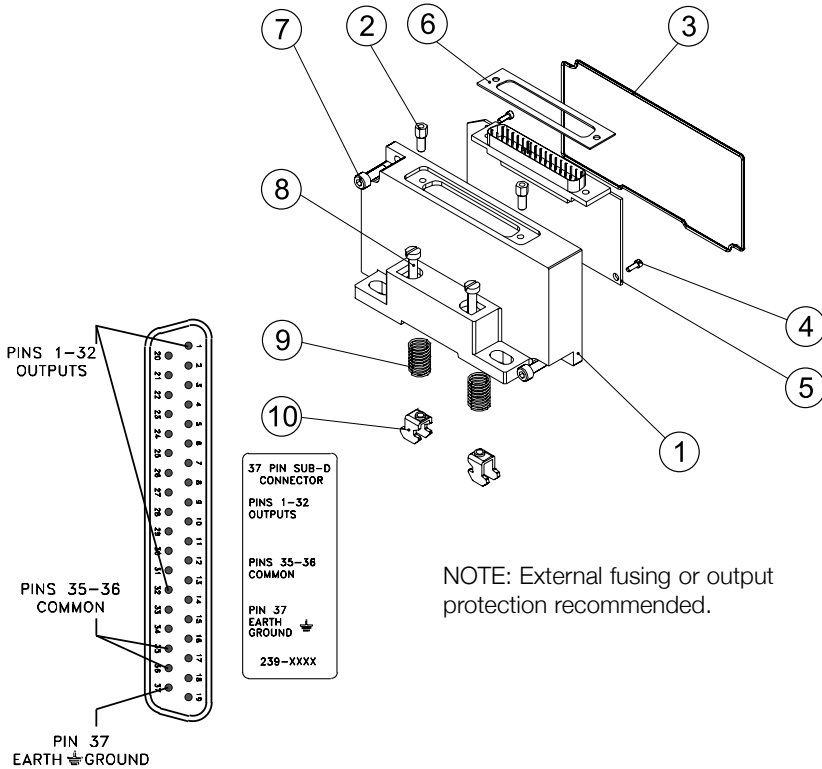
25 Pin Sub-D Connector Kit



37 Pin Sub-D Housing Kits	Part No.
Without DIN Rail	239-1174
With DIN Rail	239-1175

Det. No.	No. Req'd	Part Name	Part No.
1	1	Housing	105-401
2	2	Hex Screw	127-825
3	1	Gasket	113-531
4	2	Screw	127-318
5	1	PCB Ass'y	256-607
6	1	Gasket	113-507
7	2	Screw Ass'y	127-396
8	2	Screw (DIN Rail Only)	127-472
9	2	Spring (DIN Rail Only)	115-355
10	2	Clamp (DIN Rail Only)	125-720

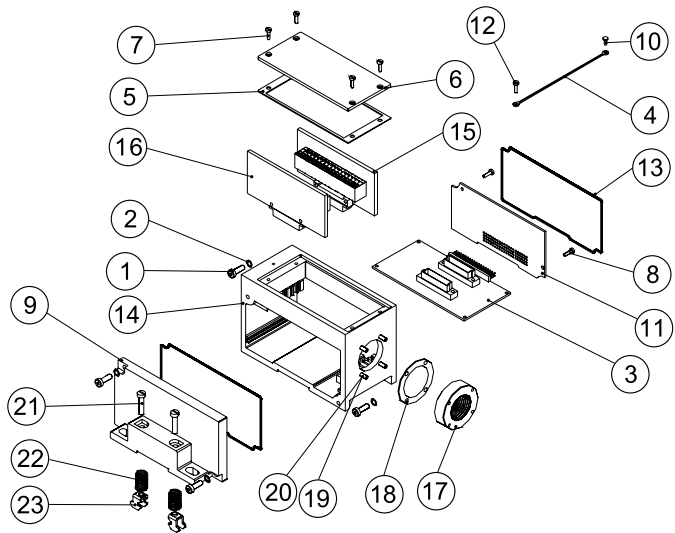
37 Pin Sub-D Connector Kit



37 Pin Sub-D Housing Kits	Part No.
Without DIN Rail	239-1180
With DIN Rail	239-1181

Det. No.	No. Req'd	Part Name	Part No.
1	1	Housing	105-402
2	2	Hex Screw	127-825
3	1	Gasket	113-531
4	2	Screw	127-318
5	1	PCB Ass'y	256-608
6	1	Gasket	113-530
7	2	Screw Ass'y	127-396
8	2	Screw (DIN Rail Only)	127-472
9	2	Spring (DIN Rail Only)	115-355
10	2	Clamp (DIN Rail Only)	125-720

1-16 & 1-32 Terminal Strip Kit



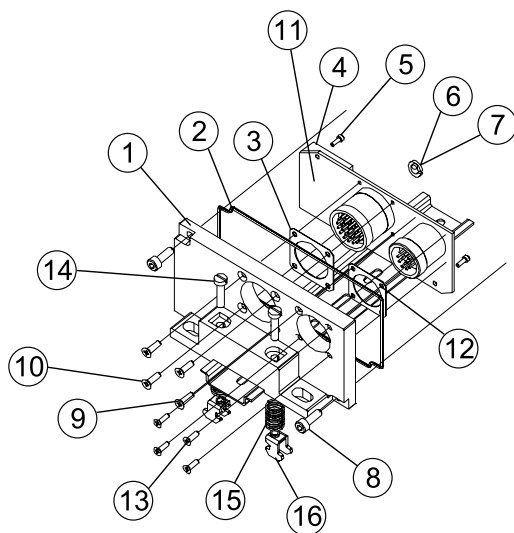
TERMINAL STRIP
TERMINALS 1-32 OUTPUTS
TERMINAL COM COMMON
TERMINAL GND EARTH GROUND
18 AWG WIRE MAXIMUM

NOTE: External fusing or output protection recommended.
NOTE: Min. Wire AWG 26
Max. Wire AWG 18

Terminal Strip Housing Kits	Part No.
Without DIN Rail, 1-16 Sol.	239-1229
With DIN Rail, 1-16 Sol.	239-1230
Without DIN Rail, 1-32 Sol.	239-1231
With DIN Rail, 1-32 Sol.	239-1232

Det. No.	No. Req'd	Part Name	Part No.
1	4	Screw	127-697
2	4	Lockwasher	128-188
3	1	Backplane board	256-618
4	1	Cover Strap	125-772
5	1	Gasket	113-533
6	1	Cover	105-405
7	4	Screw	127-852
8	1	Screw	127-318
9	1	DIN Rail Cover PT	105-403
10	1	Screw	127-180
11	1	Converter BRD	256-645
12	2	Screw	127-794
13	2	Gasket	113-531
14	1	Housing	125-844
15	1	Terminal Strip (1-16)	256-617
16	1	Terminal Strip (17-32)	256-619
17	1	Adaptor	119-659
18	1	Gasket	113-542
19	4	Screw	127-879
20	4	Lockwasher	128-192
21	2	Screw (DIN Rail Only)	127-472
22	2	Spring (DIN Rail Only)	115-355
23	2	Clamp (DIN Rail Only)	125-720

26 Pin & 26 + 12 Pin Round Connector Kit



26 PIN ROUND CONNECTOR
PINS 1-22 OUTPUTS
PINS 24-25 COMMON
PIN 26 EARTH GROUND

26 PIN ROUND CONNECTOR
PINS 1-22 OUTPUTS 1-22
PINS 24-25 COMMON
PIN 26 EARTH GROUND
12 PIN ROUND CONNECTOR
PINS 1-10 OUTPUTS 23-32

26 Pin 26 Pin + 12 Pin

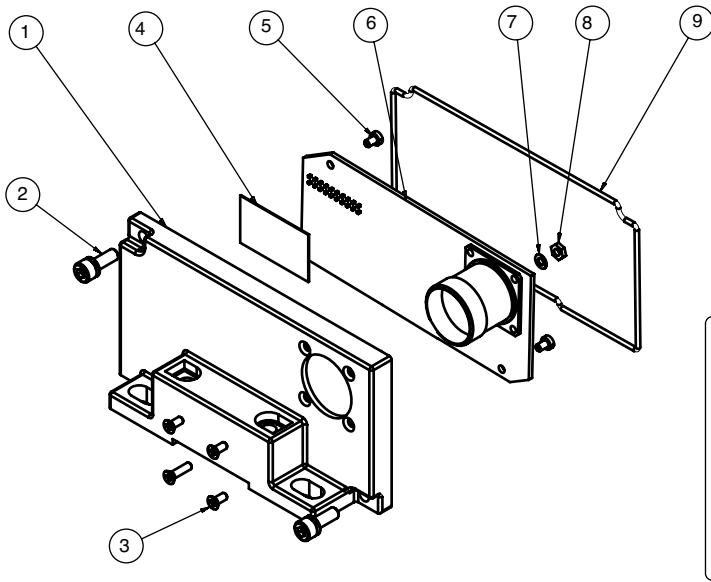
NOTE: External fusing or output protection recommended.

26 Pin Round Kit	Part No.
Without DIN	239-1184
With DIN	239-1185

26 + Pin Round Kits	Part No.
Without DIN	239-1184
With DIN	239-1185

Det. No.	No. Req'd	Part Name	Part No.
1	1	Cover (26 Pin Only)	105-408
1	1	Cover (26 + 12 Pin Only)	105-421
2	1	Gasket	113-531
3	1	Gasket	113-353
4	1	26 PCB Ass'y	256-624
4	1	26 + 12 PCB Ass'y	256-688
5	2	Screw	127-875
6	1	Lockwasher	128-294
7	1	Hex Nut	128-293
8	2	Screw Ass'y	127-396
9	3	Screw	127-810
10	1	Screw	127-770
11	1	Shield (26 + 12 Pin Only)	140-759
12	1	Gasket (26 + 12 Pin Only)	113-354
13	4	Screw (26 + 12 Pin Only)	127-811
14	2	Screw (DIN Rail Only)	127-742
15	2	Spring (DIN Rail Only)	115-355
16	2	Clamp (DIN Rail Only)	125-720

12 Pin Round Connector Kit 239-2115

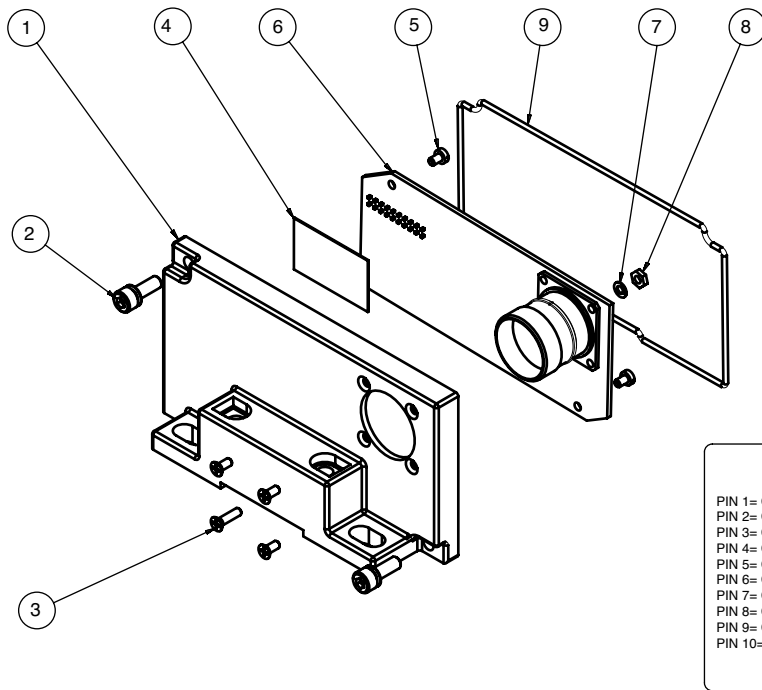


NOTE: External fusing or output protection recommended.

Parts List

Det. No.	No. Req'd	Part Name	Part No.
1	1	Cover	105-451
2	2	Screw	127-391
3	4	Screw	127-982
4	1	Shield	140-759
5	2	Screw	127-875
6	1	PC Board	256-905
7	4	Lockwasher	128-352
8	4	Nut	128-288
9	1	Gasket	113-531

19 Pin Round Connector Kit 239-2307

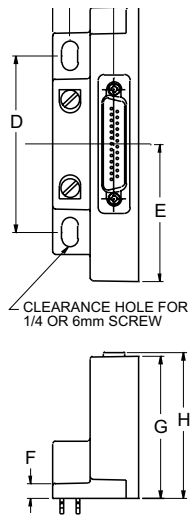


NOTE: External fusing or output protection recommended.

Parts List

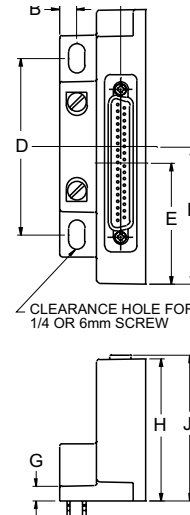
Det. No.	No. Req'd	Part Name	Part No.
1	1	Cover	105-451
2	2	Screw	127-391
3	4	Screw	127-982
4	1	Shield	140-759
5	2	Screw	127-875
6	1	PC Board	256-905
7	4	Lockwasher	128-352
8	4	Nut	128-288
9	1	Gasket	113-531

Electrical Interface
25 Pin Sub-D



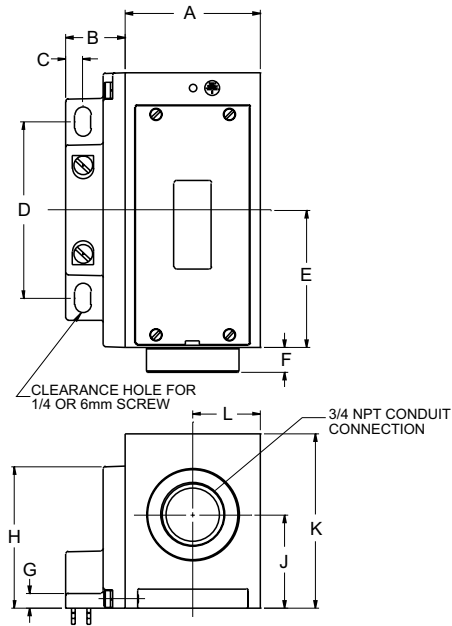
Dimensions: Inches (mm)							
A	B	C	D	E	F	G	H
1.45 (36.8)	0.29 (7.4)	0.42 (10.7)	2.98 (75.7)	2.32 (58.9)	0.25 (6.3)	2.40 (61.0)	2.47 (62.7)

37 Pin Sub-D



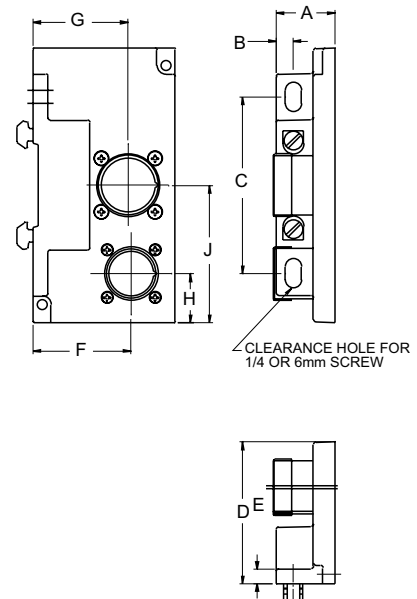
Dimensions: Inches (mm)								
A	B	C	D	E	F	G	H	J
1.45 (36.8)	0.29 (7.4)	0.42 (10.7)	2.98 (75.7)	2.04 (51.8)	2.32 (58.9)	0.25 (6.3)	2.40 (61.0)	2.47 (62.7)

Terminal Strip 1-16 & 1-32



Dimensions: Inches (mm)										
A	B	C	D	E	F	G	H	J	K	L
2.28 (57.9)	1.00 (25.4)	0.29 (7.4)	2.98 (75.7)	2.32 (58.9)	0.43 (10.9)	0.25 (6.3)	2.40 (61.0)	1.58 (40.1)	2.95 (74.9)	1.14 (29.0)

12, 19, 26 & 26 + 12 Pin Round Connector



Dimensions: Inches (mm)								
A	B	C	D	E	F	G	H	J
1.00 (25.4)	0.29 (7.4)	2.98 (75.7)	2.40 (61.0)	0.25 (6.3)	1.66 (42.2)	1.61 (40.9)	0.82 (20.8)	2.32 (58.9)



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