



## Manifolds

***Simplify solenoid valve installation with KIP manifold assemblies. KIP manifolds provide an economical and effective means of gang mounting solenoid valves***

Solenoid valve manifolds simplify the purchasing, installation, testing, and repair/replacement of solenoid valve components while enhancing system integrity. Integrating a group of solenoid valves, pressure switches, check valves, regulators or gauges into one assembly makes a complete package, eliminating tubing, fittings and potential leak points. Additionally, wire harness requirements are simplified.

Modular valves and other components can be replaced or maintained without disturbing plumbing thus reducing maintenance costs and downtime.

### Operator Mounting Type Manifolds

- Series 1 and Series 2 operators are available for gang mounting on aluminum, brass or plastic sub-plates.
- Manifolds can be selected with 1/8" NPTF or 1/4" NPTF ports.
- Orifice sizes up to 3/16" with precision machined-in seats are standard.
- Both 2-Way and 3-Way operators may be combined on the same manifold.
- Manifolds with up to 16 stations are available as standard.
- An upper manifold plate can be ordered for common porting on 2-Way Normally Open and all 3-Way valves.



### Isolation Style Manifold

- Provides a dry isolated valve operator for the control of corrosive and aggressive media.
- The diaphragm seal (Fluorocarbon, Chemraz or EPR), isolates all metal parts from the media.
- The manifold material is available in PVC, Delrin, Kynar, and acrylic.
- Operators are available as a 2-way normally closed valve only however, two valves can be combined for 3-way operation.
- Orifice sizes are available from 1/32" to 5/32" with Cv factors up to 0.545. Please refer to page 21-24 for specifications.



### Manifold Mount Valve Type Manifolds

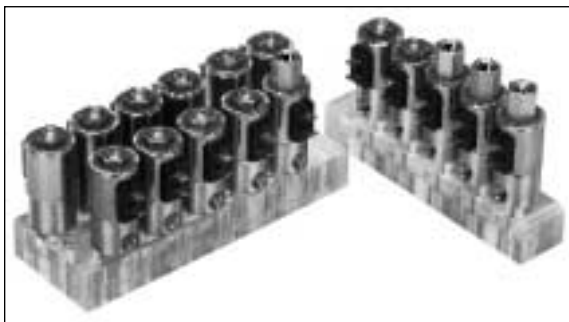
- Series 1, 2, 6 and KIP Jr. valves are available for gang mounting on aluminum, brass or plastic sub-plates.
- Manifolds can be selected with #10-32 UNF, 1/8" NPTF or 1/4" NPTF ports.
- Orifice sizes up to 1/8" in Series 1, 2, and orifice sizes up to 1/4" in Series 6 models are available, and 1/16" in KIP Jr.
- Pressure ratings are the same as those listed for the individual valves in this catalog except that the maximum operating pressure is limited to 400 PSI for UL recognition.
- 2-Way and 3-Way valves may be combined on the same manifold up to 16 stations are available on Series 1 and 2 valves, and up to 6 stations are standard on Series 6 valves.
- An upper manifold plate can be ordered for common porting on 2-Way Normally Open and all 3-Way valves. This option is not available for KIP Jr.



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## Manifolds



### Acrylic Subplates

A great answer for simplified design and easy installation of complex media flow requirements. Use of an acrylic base permits the flow of various media through a single base using multiple inlets and outlets. Flow paths can also be varied and directed to meet design requirements. KIP application engineers can help you select the most effective design for easy installation, access, and the best product aesthetics. Acrylic subplates are supplied for OEM applications only.



### Additional OEM Manifold Design Capabilities

KIP manifolds offer many additional options such as:

- Metering of valves for flow control.
- Sub-plates of many materials including brass, Delrin, 430 SS, aluminum, acrylic and Kynar .
- Unique configurations to accommodate pressure regulators, pressure gauges, transducers, and/or switches as well as flow paths to meet your specific requirements.
- Other port sizes and locations.
- Internal check valves.
- Teflon taped fittings.
- Test ports.
- Multi-media manifolds.
- Flow or no-flow monitoring.

Consult KIP for application engineering assistance.

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### KIP Jr. Manifolds

All of the manifold types described on these pages are also available in the KIP Jr. Series.

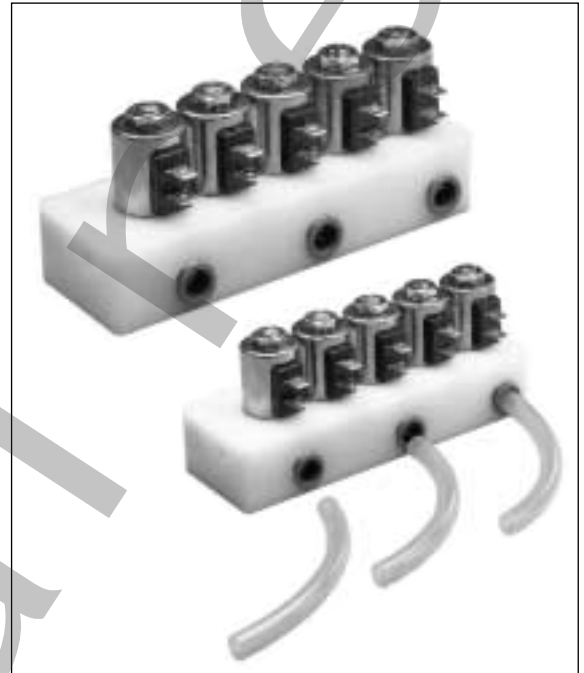
#### FEATURES:

- Operator Style manifolds for small profile, low cost OEM applications.
- Manifold mount style for ease of installation and service.
- Inert plastic bases with isolation solenoid operators and ethylene propylene diaphragms for aggressive or high purity media.
- Electronic/Pneumatic interface circuit cards for gang mounting multiple valves for a computer driven system.



## Manifold Assemblies with Cartridge Fittings Installed

- No fittings to install, Teflon tape or lubricant, and no leaks
- Compatible with both air and liquids
- Available in Series 1, 2 or 6 manifold mount style valves with base materials of Delrin, PVC, brass or aluminum
- As always, KIP is ready to manufacture a “special” to meet your exact OEM specifications



Minimize your labor and material cost by ordering this unique package from KIP. With cartridge fittings installed into the manifold base, you simply push in the proper size tube and you are done.

Select the valve or manifold assembly desired. See the part identification numbering system, the standard manifold ordering information or the Valve Inquiry Application Sheet found on page 72. Specify on your request to have cartridge fittings installed. Be sure to indicate the outside diameter (O.D.) of the tubing you will be using. The following standard sizes are available by Series:

Series	Tubing Outside Diameter		
	Series 1	1/4"	3/8"
Series 2	1/4"	3/8"	–
Series 6	1/4"	3/8"	1/2"

Please note: All manifolds with the cartridge fittings installed have a maximum pressure rating of 150 PSI, even though the actual valve you select may have a higher pressure rating.

Overall manifold dimensions for this option can be found on page 44.

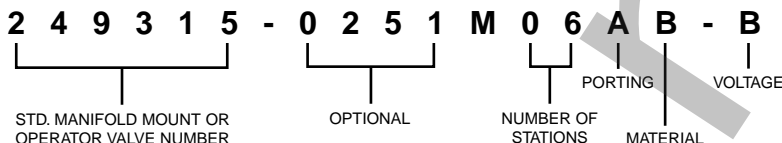
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## Standard Manifold Ordering Information

It's easy to order your own standard KIP Manifold assembly using the simple selection chart below. First, select the manifold mount valve or valve operator from the part numbering charts on pages 32 through 37 or create the part number from the part number identification

system on page 9. Provide the numbers for the desired seal and coil construction options if applicable. This will give you the valve portion of the manifold. Now, select the base to complete your assembly.



### Number of Stations

Fill in the number of valve stations you need after the "M". This can be up to 16 stations for series 1, 2 or KIP Jr., and 6 stations for series 6. For operator style manifolds where the cavity is machined into the base, 16 stations is the maximum for series 1, 2 and KIP Jr. series and 6 stations for series 6.

B) Brass - Commonly used for non-potable water applications or other low pressure fluids or oils.

D) Delrin - FDA grade material is used for potable water applications, critical gas sampling or high purity systems.

### Voltage

After selecting your standard manifold part number, remember to include the operating voltage. Select the appropriate letter from the following standard voltages and add it at the end of your manifold part number:

### Porting

Select the porting configuration and port size to fit your application. Choose from the offerings below and enter the appropriate letter after the number of stations.

### Base Material

Next, select the base material which offers the best media compatibility for your application. Place the appropriate letter in the last position of the part number sequence.

A) Aluminum - Best suited for non-critical air, vacuum or inert gases.

Voltage	Designation	KIP Jr. Series	All Other Series
5VDC	A	Standard	Special
12VDC	B	Standard	Standard
15VDC	C	Standard	Special
24VDC	D	Standard	Standard
24/60	E	N/A	Standard
110/50	F	N/A	Standard
120/60	G	N/A	Standard
220/50	H	N/A	Standard
240/60	I	N/A	Standard

Porting Designation	Valve Series	Valve Type	Common Port Size	Common Marking	Outlet Port Size	Outlet Marking	Comments
A	S1, S2, S6	2WNC	1/8"NPT	IN-2	1/8"NPT	OUT-1	
B	S1, S2, S6	2WNC	1/4"NPT	IN-2	1/4"NPT	OUT-1	
C	S1, S2, S6	3WNO	1/8"NPT	EXH-1	1/8"NPT	CYL-2	Inlet Port is through Valve Adapter
D	S1, S2, S6	3WNO	1/4"NPT	EXH-1	1/4"NPT	CYL-2	Inlet Port is through Valve Adapter
C	S1, S2, S6	3WNC	1/8"NPT	IN-1	1/8"NPT	CYL-2	Exhaust Port is through Valve Adapter
D	S1, S2, S6	3WNC	1/4"NPT	IN-1	1/4"NPT	CYL-2	Exhaust Port is through Valve Adapter
C	S1, S2, S6	3WMP	1/8"NPT	NC-1	1/8"NPT	COM-2	N.O. Port is through Valve Adapter
D	S1, S2, S6	3WMP	1/4"NPT	NC-1	1/4"NPT	COM-2	N.O. Port is through Valve Adapter
J	KIP Jr.	2WNC	1/8"NPT	IN-2	#10-32 UNF	OUT-1	
R	KIP Jr.	3WNO	1/8"NPT	EXH-1	#10-32 UNF	CYL-2	Inlet Port is through Valve Adapter
R	KIP Jr.	3WNC	1/8"NPT	IN-1	#10-32 UNF	CYL-2	Exhaust Port is through Valve Adapter
R	KIP Jr.	3WMP	1/8"NPT	NC-1	#10-32 UNF	COM-2	N.O. Port is through Valve Adapter

Note: For 3-way directional control manifolds, use the 3-way multi-purpose manifold which most closely fits your need.

For the 2-way normally open manifolds, consult KIP.