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Important Note

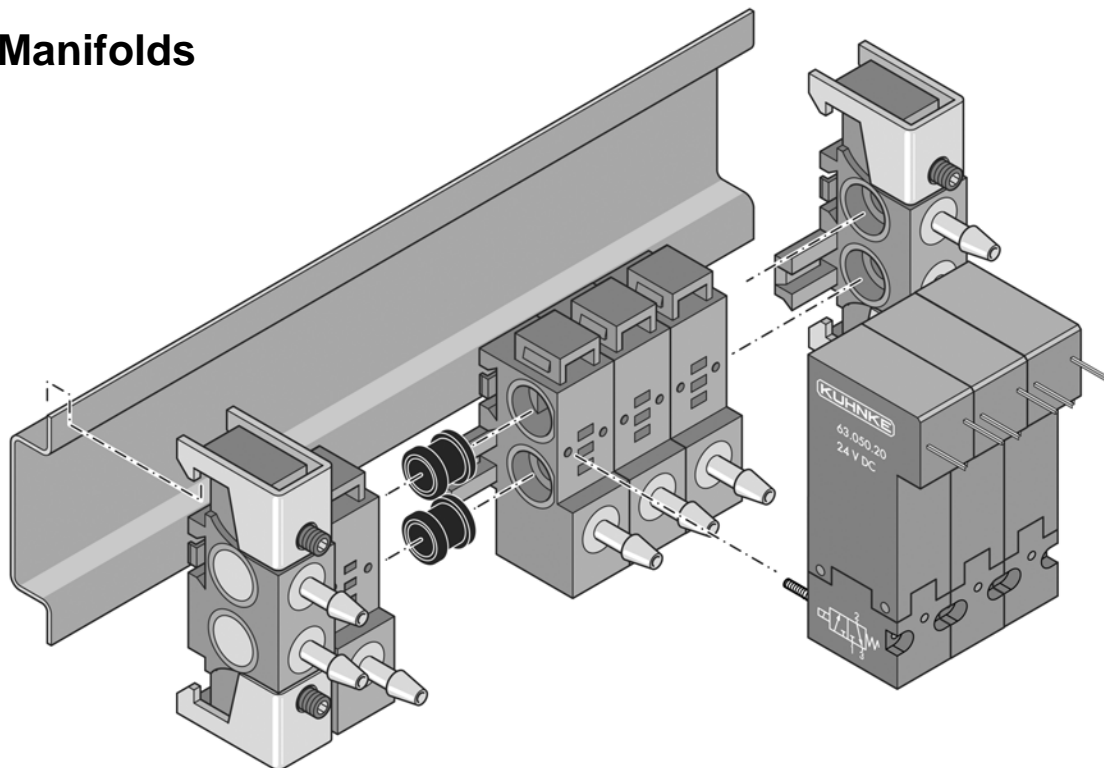
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Micro Solenoid Valves

Series 63 Valve Accessories

Kuhnke Miniature Valves

Modular Manifolds



Manifold Assembly,
DIN Rail Version with
Standard Size Valves

Series 63 Modular Manifolds can be built up to suit specific installation requirements. Components are available in 2 versions: for DIN rail, or surface mounting. Component sections consist of inlets, endplates, center supports, center inlets as well as valve bases. Special grommets, included with each module, are inserted between units to form a seal for internal common air supply and exhaust lines. Tabs at the bottom of each module interlock with adjacent sections to form the manifold. The module assembly is secured by tightening screws on the end modules to the panel surface or DIN rail.

Normally closed or normally open valve functions are achieved by assembling the valve bases in specific positions on the manifold, see manifold assembly notes.

Intermediate air supply modules and seal barriers can be used to construct manifolds with several air supply sources.

All air connections have barb fittings for 3mm (1/8) I.D. tubing.

Valves are assembled on the built up manifold using a special seal and screws supplied in the valve package.

Electrical connections are dependent on the type of valve coil design selected.

Custom manifolds can be factory assembled for OEM applications.

Dimensions

Approximate manifold dimensions, including the standard size valves mounted, are 1 3/8" (35mm) deep x 2 5/32" (55mm) high x length. To determine length, add 3/8" (10mm) for each module used in the assembly.

Modules are molded from POCAN, seals NBR, and have brass inserts for end caps and tube connections. The use of an intermediate support is recommended for each 8 valve positions on the manifold.

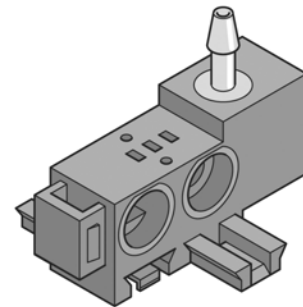
Modular Manifolds–Valve Base Sections

- Base for 3 Way N.C. or N.O. Valve **63071-00**
- Base for 2 Way N.C. Valve **63071-10**
- Base for 2 Way N.O. Valve **63071-20**

Manifold valve base sections are available in 3 versions to meet valve application requirements. Three way valves are used in conjunction with these bases to provide 2 or 3 way operation. The position of the valve base on the manifold determines the N.O. or N.C. function. See manifold assembly notes on the next page.

Valve bases are used for both DIN rail or surface mounted manifolds.

Sections are molded material and include a brass barb fitting for 1/8" (3mm) I.D. tubing. Each base has interlocking tabs for snap on connection to the manifold assembly and includes 2 grommet seals for the common input and exhaust channels. Valves are mounted on the bases with the use of 2 special self-tapping screws and gasket included in the valve package.



3 Way
Valve Base

Modular Manifolds- Headers, Center Supports, Endplates (For DIN Rail Mounting)

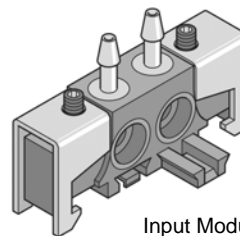
- Common Input and Exhaust Module (Header) **63076-00**
- End Plate **63079-00**
- Intermediate Input Module **63076-10**
- Middle Support Module **63079-10**

Rail mounting modules are supplied with clips and fastening screws to mount manifold assemblies on standard DIN rails. All modules have interlocking tabs for assembling custom manifolds and include 2 sealing grommets. Input modules have brass barb fittings for 1/8" (3mm) I.D. tubing for connection of common air supply and exhaust lines.

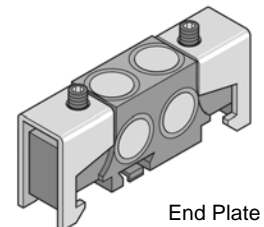
An intermediate input module can be used to provide an additional air supply on large manifold assemblies, or with the use of a blocking grommet cat. no. 64390-02, can be used to isolate the manifold section for connection of a separate air supply.

The middle support module should be used to support the manifold between every 8 valve bases used on the manifold assembly.

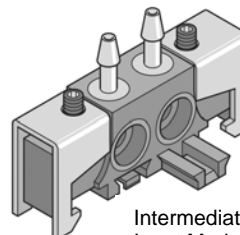
An end plate is required to close off the manifold.



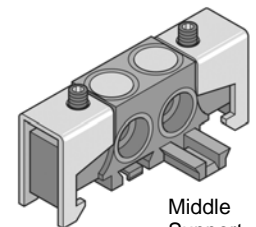
Input Module



End Plate



Intermediate
Input Module



Middle
Support

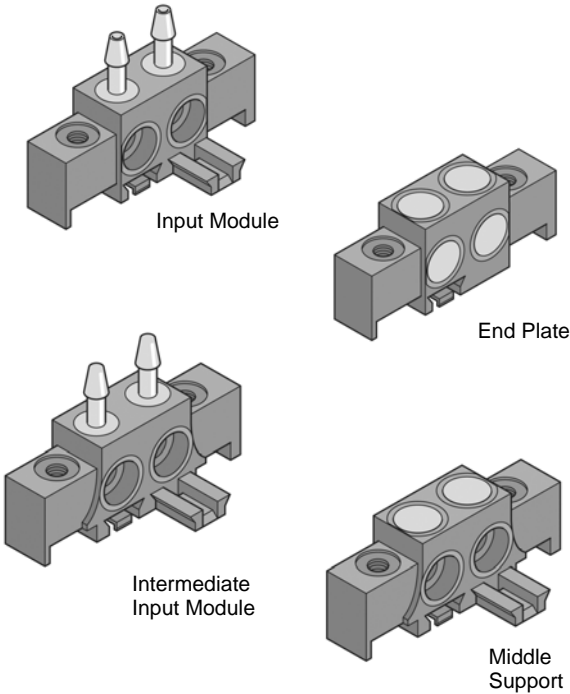
Micro Solenoid Valves

Series 63 Valve Accessories

Kuhnke Miniature Valves

Modular Manifolds- Headers, Center Supports, Endplates

(For Surface Mounting)



63086-00 Common Input and Exhaust Module (Header)

63089-00 End Plate

63086-10 Intermediate Input Module

63089-10 Middle Support Module

Surface mounting modules have 2 mounting holes on 1 7/32" centers for #4 (or M3) screws to attach manifolds to panel surfaces. All modules have interlocking tabs for assembling custom manifolds and include 2 sealing grommets.

Input modules have brass barb fittings for 1/8" (3mm) I.D. tubing for connection of common air supply and exhaust lines.

An intermediate input module can be used to provide an additional air supply on large manifold assemblies, or with the use of a blocking grommet cat. no. 64390-02, can be used to isolate the manifold section for connection of a separate air supply.

The middle support module should be used to support the manifold between every 8 valve bases used on the manifold assembly.

End plates are used to close off the manifold.

Manifold Assembly Notes

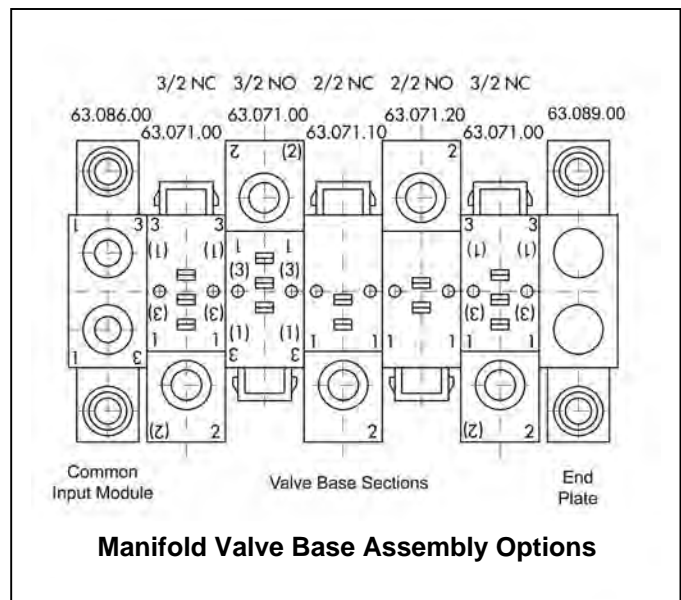
The basic manifold assembly consists of a header for supply air and exhaust connections, bases to mount valves and an end plate to close off the manifold.

Valve bases must be assembled in specific positions on the manifold to obtain normally open or normally closed functions. For all *Normally Closed* functions the tube connection for port 2 will be at the bottom. For *Normally Open* functions the base is mounted with the tube connection at the top of the manifold (180° opposite).

The illustration shows the variations for mounting valve bases.

Dimensions

Manifold dimensions, including the standard valves mounted, are 1 3/8" (35mm) deep x 2 5/32" (55mm) high x length. To determine length, add 3/8" (10mm) for each module used in the assembly (include header, end plate and all intermediate modules).

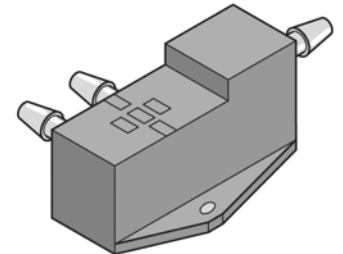


Manifold Valve Base Assembly Options

Single Sub Base

Molded Sub Base 63091-41

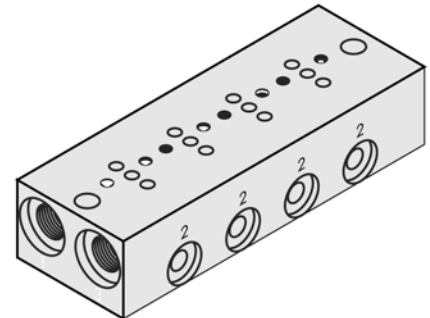
A molded sub base can be used for surface mounting a single 3 way valve. The base includes brass barb fittings for 1/8" (3mm) I.D. non-rigid tubing. Dimensions (including valve mounted) are 1 1/4" H. x 1 5/8" L x 1" W. Two mounting holes for #4 (or M3) screws on 5/8" centers are used to mount the base. Valves are mounted on the base using the special self-tapping screws supplied in the valve package.



An aluminum sub base, (catalog no. **86406-01** -not shown) is also available for mounting single valves. The base has ports for M3 fittings and has 2 mounting holes for #4 (or M3) screws. Valve mounting screws are self-tapping type for metal and are included with the base.

Aluminum Manifolds

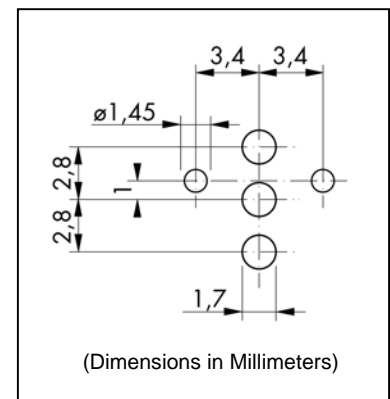
Aluminum manifolds are available to mount 3 way normally closed Series 63 valves. Units are constructed of aluminum bar stock with 10-32 (M5) supply ports at each end and metric M3 output ports along valve stack. Manifolds are all pre-drilled to allow valves to be mounted side by side without intermediate spacing. Standard manifolds are available for 2, 3 or 4 station configurations. Mounting is via a 1/8" screw hole at each end of the manifold. Valve mounting screws are self-tapping type for metal and are included with the manifold.



Number of Stations	Dimensions 3/4"W x 1/2"H x L Dim Below	Catalog Number
2	1 1/4"	86406-02
3	1 11/16"	86406-03
4	2 1/8"	86406-04

Drilling Plan for Custom Manifolds

Valves can be mounted with 10.5mm (.413 inch) spacing between centers. Mounting holes should be tapped for 1.6mm x 18 metric thread for machine screws. A self-tapping screw is also available. Screws supplied with valves are used for molded modular manifolds. For other screws see next page. Ports are centered and are numbered 3, 2, 1 from top to bottom.

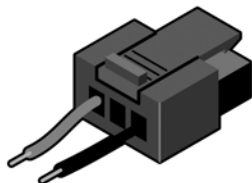


Micro Solenoid Valves

Series 63 Valve Accessories

Kuhnke Miniature Valves

Electrical Connectors

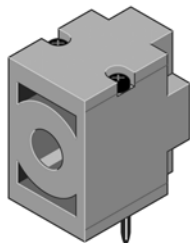


MPP91130-36-00 Connector, 1 foot (300mm) leads (Pack of 10)

MPP91130-39-00 Connector, 6 foot (2000mm) leads (Pack of 10)

Connectors are designed for use with Series 63 valves equipped with a plug socket. Wires are color coded for easy identification and connectors are available with 2 different wire lengths. Connector snaps on to coil and can be easily disconnected by pressing a release tab on the top of the plug.

Blanking Cap



63095-00

Blanking caps are used to block ports on an unoccupied valve base. Used when manifolds are constructed with positions for future valves. Constructed of the same molded material as the manifold, the cap includes a gasket and 2 special screws for mounting on the modular valve base.

Blocking Grommet



64390-02 (Pack of 50)

A barrier is used in place of the standard sealing grommet between manifold modules to block off common input and exhaust ports when constructing manifolds with different air supply sources.

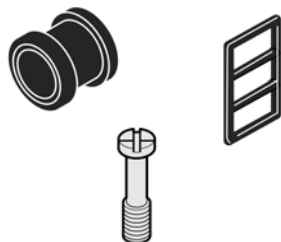
Special Mounting Hardware



63100-02 Metric thread 1.6 x 18 Machine Screw (Pack of 100)

Special size machine screws are used for mounting valves on custom made metal manifolds with tapped holes. See spare parts below for self-tapping screws.

Spare Parts



64390-01 Sealing Grommet (Pack of 50)

63230-02 Valve Seal (Pack of 50)

63100-00 Valve Mounting Screw, Self-tapping, for Aluminum Manifolds (Pack of 100)

63100-01 Valve Mounting Screw, Self-tapping, for Modular Manifolds (Pack of 100)

Series 63 Cataloging System

The chart below includes standard and optional types of valves. For standard types, see the catalog pages. Contact factory for information about other possible valve combinations. Not all combinations in this chart are possible.

Typical Catalog Number →	63	05	4-	2	0
Valve Series Number –	63				
Solenoid Design –					
Standard 1.8W coil w/plug, electrical connection left, pneumatic ports right side.		02			
Standard 1.8W coil w/pins, electrical connection left, pneumatic ports right side.		03			
Standard 1.8W coil w/pins, electrical connection right, pneumatic ports right side.		04			
Standard 1.8W coil w/pigtails, electrical connection left, pneumatic ports right side.		05			
Standard 1.8W coil w/pigtails, electrical connection right, pneumatic ports right side.		06			
Low Power, 1 W coil w/plug, LED and surge suppressor, electric left, pneumatic ports right side.		11			
Low Power, 1 W, coil w/plug and power saver circuit, electric left, pneumatic ports right side.		12			
Low Power, 1 W coil w/pins, electrical connection left, pneumatic ports right side.		13			
Low Power, 1 W coil w/pins, electrical connection right, pneumatic ports right side.		14			
Function –					
3 Way NC without manual operator			0		
3 Way NO without manual operator			1		
2 Way NC without manual operator			2		
2 Way NO without manual operator			3		
3 Way NC with manual operator			4		
3 Way NO with manual operator			5		
2 Way NC with manual operator			6		
2 Way NO with manual operator			7		
Orifice –					
0.3mm				0	
0.5mm				1	
0.7mm				2	
0.9mm				3	
1.0mm				4	
0.4mm				5	
1.2mm				6	
Valve Seals –					
NBR (Std)					0
Viton					1
EDPM					2
Silicone					3