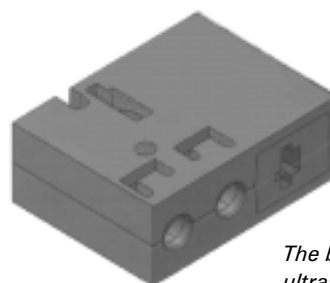
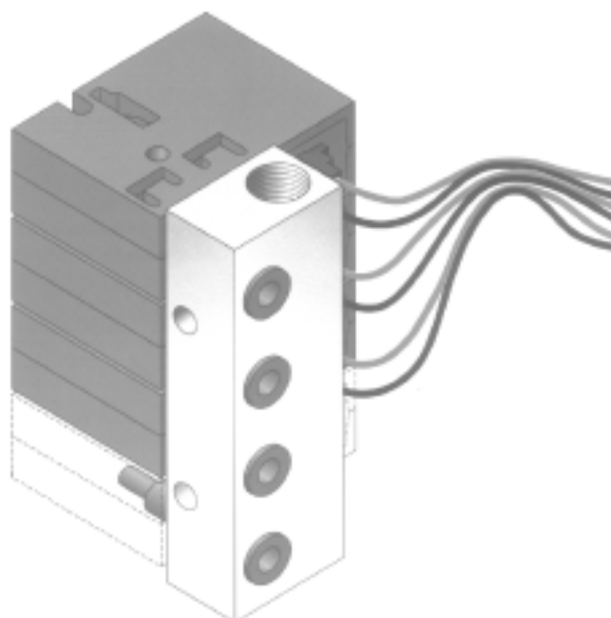


*Mead's patented "half-shell" design allows flow channels and component compartments to be designed directly into the body.*



*The body halves are joined by ultrasonic welding, creating a strong bond and hermetic seal.*



*The unique Isonic manifold allows instant valve connection and removal, without the aid of a tool.*

## Design Optimizes Valve Performance...

Isonic® 2, 3 and 4-way valves feature a unique, multi-patented design that significantly shrinks valve size while boosting flow capacity. With its design and a state-of-the-art manufacturing process, Isonic® breaks through the restriction and limitations of conventional valve manufacturing.

## ...And Cuts Costs!

Isonic® technology eliminates all machining operations associated with valve manufacturing. Requiring only simple assembly, Isonic® can be produced quickly and easily with significant cost reduction.

## The Award-Winning "Half-Shell" Design

The heart of the Isonic® concept is its patented "half-shell" design. Composed of two mirror-image halves, Isonic® allows its flow channels and internal component compartments to be designed directly into these molded body sections. Valve bodies are molded of high-strength, glass-impregnated Ultem thermoplastic.

Assembly is achieved by simply inserting the various valve elements into their corresponding "half-shell" pockets. Internal components are easily positioned to make optimal use of space.

The valve is completed by ultrasonically welding the two valve segments, creating a strong bond and hermetic seal. This design totally eliminates the need for fasteners, adhesives, gaskets and inserts.

## New Patents

Patent #	Patented Property
5,222,715	"Half-Shell" Valve Construction
5,341,846	Plug-In Valve Stack Assembly

Additional Patents Pending

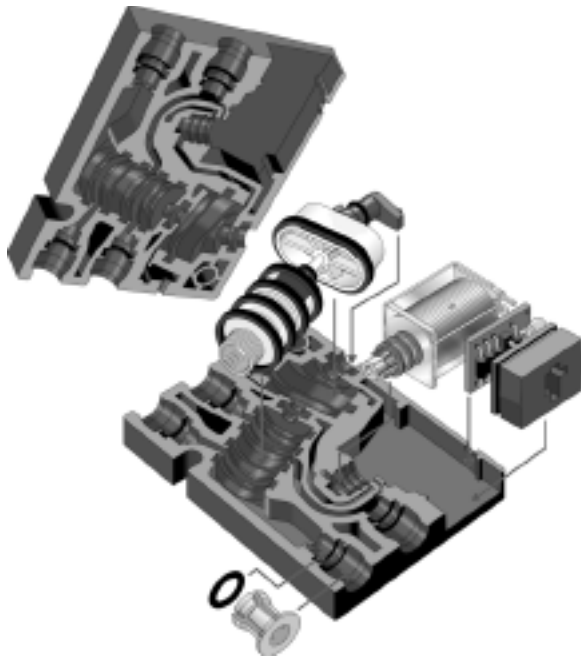


Isonic® has earned UL recognition, is tested to the standards of CSA and conforms to the applicable directives of the European Union.

Isonic® is a registered trademark of Mead Fluid Dynamics, Inc.

## Loaded with Standard Features

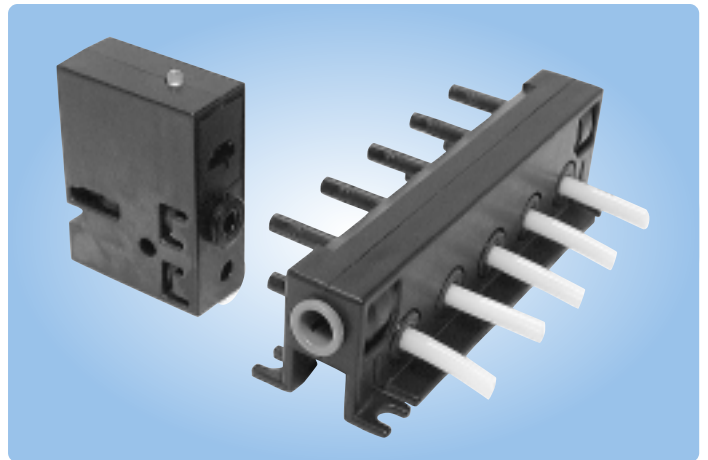
Along with its size and price advantages, Isonic® offers numerous user features, many of them standard. Most models feature an integral electronic board with surge suppression and LED. A variety of voltages and wiring options are available. This combination of price and versatility make Isonic® the perfect control choice for pneumatic systems.



## Faster Manifold Connections

The Isonic® manifold system has been designed to virtually eliminate downtime, eliminating all end plates, screws, o-rings and gaskets customarily found in manifold systems. Connecting any valve to the manifold base is as easy as plugging in an electrical cord. With this patented "plug-in" design, replacing an individual valve can be accomplished in seconds, without the aid of any tools!

Available in two, three, four or five station segments, the Isonic® manifold's unique modular design creates a versatile, expandable control base. For larger manifolds, two or more segments can be easily combined to fulfill any needs. Further, manifold segments are easily isolated for applications with differential pressures.



## Quick-Connect Collets - No Fittings Needed

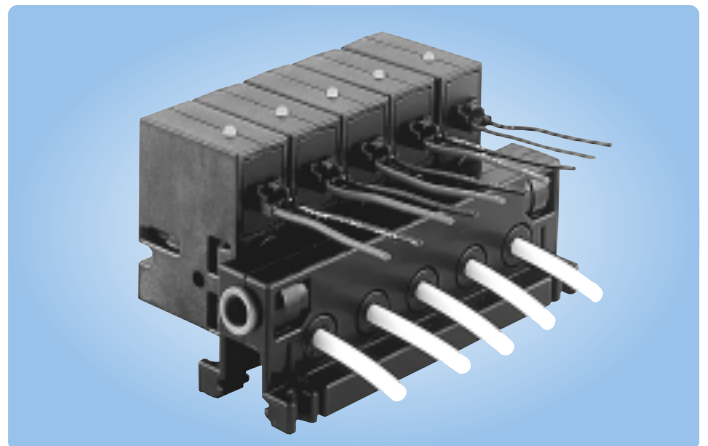
With its unique design Isonic® eliminates the need for tube fittings. Built-in, push-to-connect collets allow for fast and easy tube and manifold connections.

## Resistant To Harsh Conditions

Molded from a high performance thermoplastic, Isonic® achieves superior heat, impact and chemical resistance. It is listed with both UL and CSA.

## Maximum Air Flow

Instead of the angular passages of most conventional valves, Isonic's internal channels are aerodynamically shaped for maximum air flow and minimal internal friction. Eliminating sharp corners and abrupt changes in direction reduces air turbulence and energy loss. Normally round air passages are replaced by thin, deep, tape-like channels that conserve space and optimize air flow.



The Isonic® manifold can be either foot mounted or DIN rail mounted.

## Specifications

<b>Design :</b>	Poppet
<b>Media:</b>	Air or Inert Gas
<b>Lubrication:</b>	None Required
<b>Filtration:</b>	40 micron
<b>Cycle Life:</b>	50,000,000 cycles
<b>Orifice Size:</b>	A: 0.025" / 0.65mm B: 0.035" / 0.90mm C: 0.055" / 1.4mm
<b>Flow:</b>	A: 0.01 C <sub>v</sub> B: 0.02 C <sub>v</sub> C: 0.05 C <sub>v</sub>
<b>Maximum Pressure:</b>	A: 120 PSI / 8.3 Bar B: 120 PSI / 8.3 Bar C: 30 PSI / 2.1 Bar
<b>Vacuum:</b>	to 28 in .Hg
<b>Temperature Range:</b>	0° - 120°F / 49°C
<b>Tubing:</b>	5/32" or 4mm
<b>Mounting Holes:</b>	0.156 diameter (1 hole, 1 slot)
<b>Seals:</b>	Viton® and Nitrile
<b>Weight:</b>	1.5 oz. (per valve)

## Solenoid Data

Voltage	12DC	24DC	24AC	120 AC
<b>Amps</b>	0.133	0.058	0.058	0.014
<b>Resistance</b>	92Ω	406Ω	406Ω	8350Ω
<b>Initial Power</b>	1.6	1.4	1.4	1.7
<b>Continuous On</b>	1.3	1.2	1.2	1.5

**Response Time:** 10 milliseconds

**Molex Connector:** UL and CSA Listed

**Din Connector:** Protection Class- IP 65 according to DIN 40 050  
Insulation Class- Group C according to VDE 0110  
Conform to DIN 43650 Form C Specifications

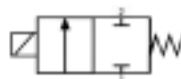
## Manifold

**Common Air Inlet:** Built-in, push-in fittings for 1/4" OD or 6mm tubing both ends

**Foot Mounting:** 4 slots, 11/64" diameter

**DIN Rail Mounting:** Attaches to 15mm DIN rail

## Valve Symbols:



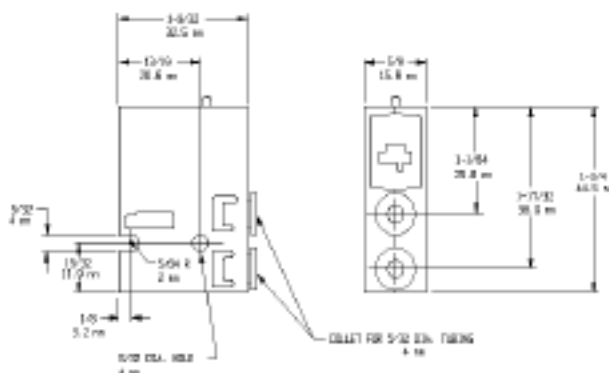
2/2 NC



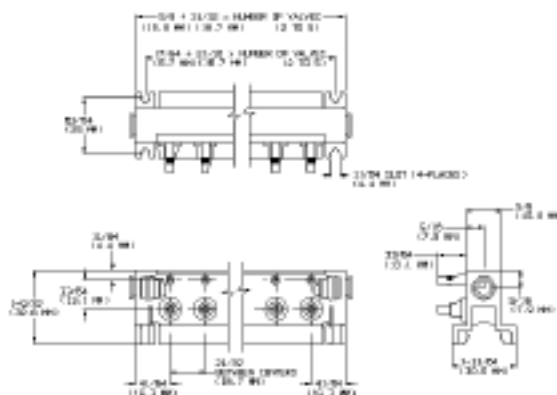
3/2 NC

## Dimensions

## Valves:



## Manifolds



## Accessories



P1SA1

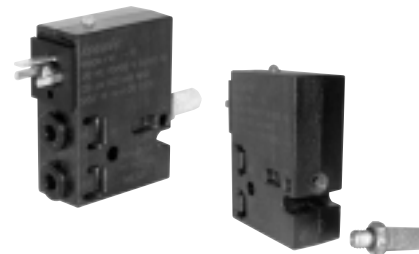


P1SA2



P1Q1

NOTE: (1) pc. is included with each "W" type valve. 24 AWG wire.



MM-019

Muffler shown here on V1 Valve with T1 option

## How To Order

**V 1 B 04 - A W 1 - (\*\*)**

### Product Category

V = Valve

### Family

1 = Isonic® 1000 (2-way; 3-way)

### Orifice Size

A = 0.025" (0.6mm)

B = 0.035" (0.9mm)

C = 0.055" (1.2mm)

### Flow Pattern

02 = 2-Way Normally Closed

04 = 3-Way Normally Closed

05 = Vacuum (3-Way) Normally Closed

06 = Vacuum (2-Way) Normally Closed

### Options

T1 = Tapped Exhaust (10-32)

T2 = Tapped Exhaust (M5x0.80)

### LED

0 = No LED

1 = LED (not available with connector Z)

### Connector

W = Mini Quick Connect  
(with electronic board)

X = 8mm micro DIN (with board)  
connector not included

Y = Flying Lead (with board)

Z = Flying Lead  
(no board - DC only)

### Solenoid Voltage

A = 12 DC

B = 24 DC

D = 24 50/60 Hz AC

F = 120 50/60 Hz AC

## Manifolds:

**M 1 04 - J 0 - (\*\*)**

### Product Category

M = Manifold

### Family

1 = Isonic® 1000 (2-Way; 3-Way)

### Number of Stations

02 = 2 Stations

03 = 3 Stations

04 = 4 Stations

05 = 5 Stations

N = N Stations (modular segments are combined for manifolds over 5 stations)

### Options

A = Aluminum Manifold

### Manifold Assembly

0 = Manifold Only

2 = Assembled Manifold on DIN rail

### Common Air Inlet (Both Ends)

J = Push in fitting for 1/4" O.D. tubing

K = Push in fitting for 6mm tubing

## Accessories:

### Electrical Connectors

8mm Micro DIN Connector . . . . . P1D1

8mm Micro DIN Connector (molded, pre-wired) . P1D2 (Includes 39"/ 1m leads)

Mini Quick-Connect . . . . . P1Q1 (includes 18"/ 45cm leads; contact factory for longer lengths)

### Manifold Accessories

15mm DIN Mounting Rail . . . . . P1M1-x (where x = desired number of feet of DIN rail)

15mm DIN Rail End Stops . . . . . P1S1 (note: two required per manifold)

4mm (5/32") Manifold Blocking Plug . . . . . P1B1 (for blocking empty manifold stations)

1/4" Manifold Inlet Port Plug . . . . . P1P1 (one included with each manifold)

6mm Manifold Inlet Port Plug . . . . . P1P2 (one included with each manifold)

### Miscellaneous

10-32 Muffler . . . . . MM-019 (to silence exhaust in 10-32 exhaust port)

Port Adapter . . . . . P1SA1 (converts 5/32" port to 1/4" barb OD tube)

Port Adapter . . . . . P1SA2 (converts 5/32" port to 1/4" push-to-connect OD tube)

See additional accessories on page 17