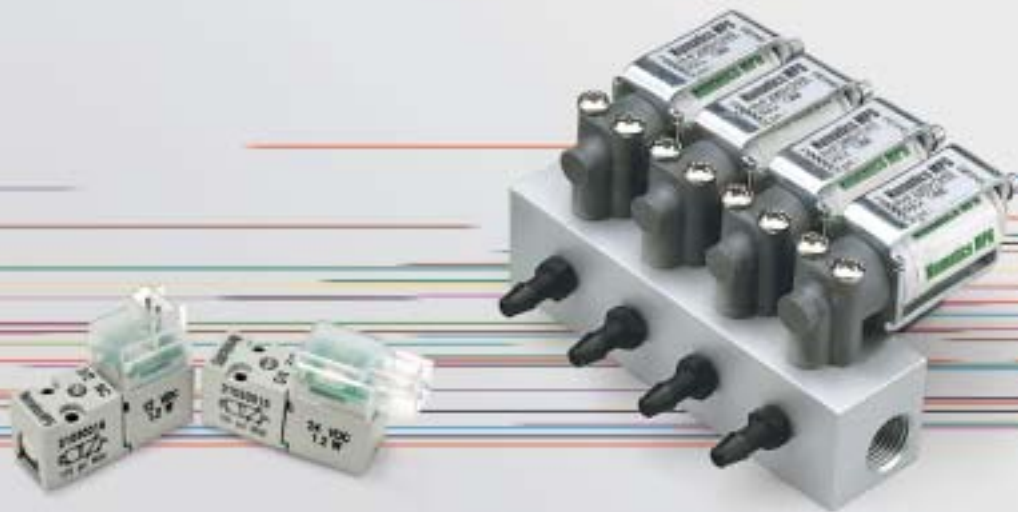




numatics®

Valves

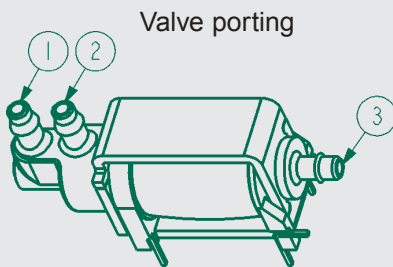
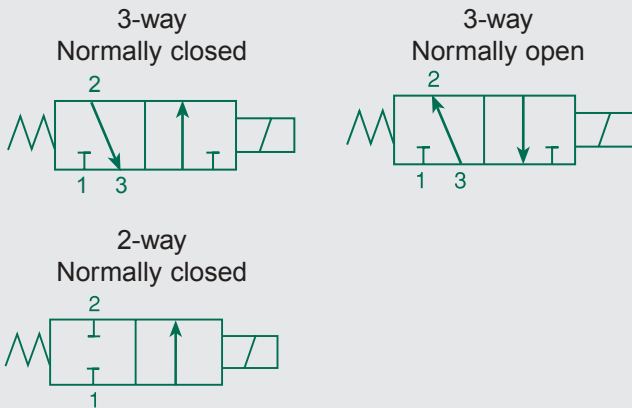


***Miniature Pneumatics***

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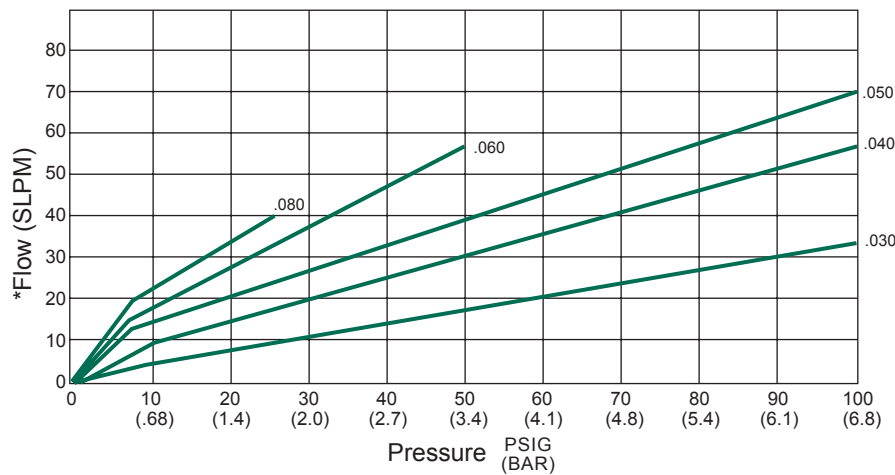
<b>Miniature Valve Series</b> .....	3-14
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### RB Series Miniature Valve

- Tested in excess of 500 Million cycles
- Maximum leakage rate: 0.016 SCCM (Bubble Tight)
- Temperature range: -10°F to 150°F (-23°C to 66°C)
- Class "A" Insulated coils
- All valves 100% factory tested
- #26 AWG Teflon insulated lead wires
- Circuit board mountable
- Built in barbed fittings
- 10 m (Micron) filtration recommended
- Response time < 0.010 Seconds
- All valves rated to 28" Hg. Vac
- Oxygen Clean available
- Recommended for use with dry air, lubricated air, vacuum, non-corrosive, non-toxic, non-flammable dry gases.
- Consult factory for other service applications.

### Technical Data



.080 orifices are not available in .080 barbed body styles.

\*FLOW: (SLPM) Standard liters per minute Port 1-2 (normally closed)

Note: Flow test are based on average readings and nominal components. All outlets are vented to atmosphere. Results may vary.

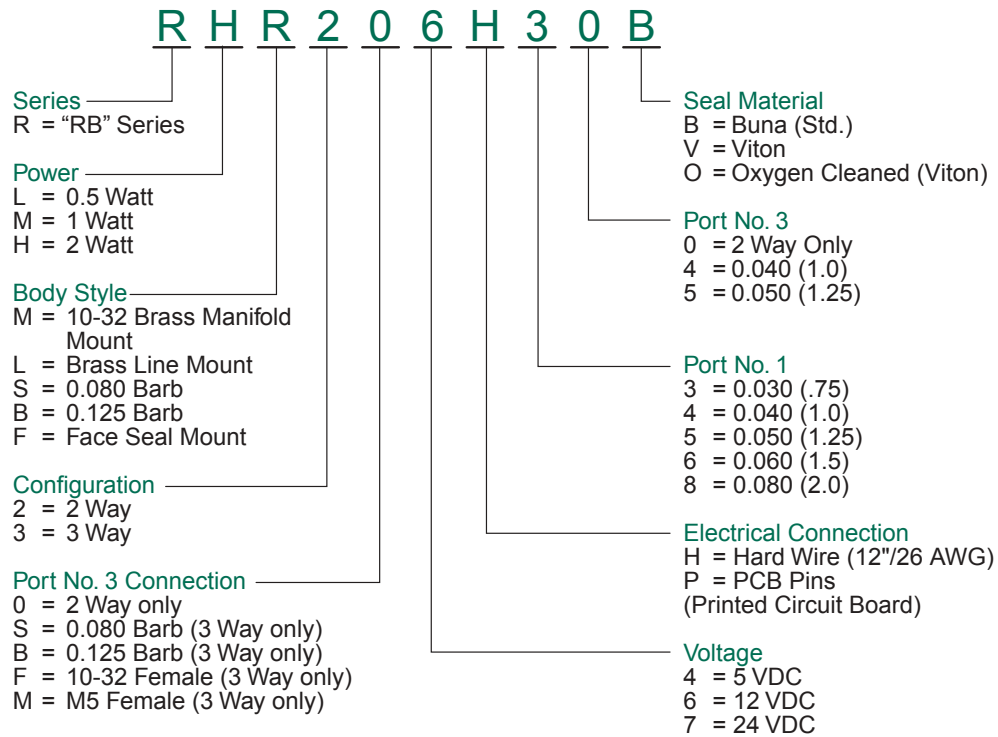
VALVE SERIES	WATTAGE	ORIFICE	CV	MAXIMUM PRESSURE	
				BRASS	PLASTIC
RB	0.5 Watt	0.030 (0.75)	0.025	50 psi (3.4)	15 psi (1.0)
RB	0.5 Watt	0.040 (1.0)	0.035	50 psi (3.4)	10 psi (0.68)
RB	0.5 Watt	0.050 (1.25)	0.055	25 psi (1.7)	10 psi (0.68)
RB	1.0 Watt	0.030 (0.75)	0.025	100 psi (6.8)	50 psi (3.4)
RB	1.0 Watt	0.040 (1.0)	0.035	50 psi (3.4)	50 psi (3.4)
RB	1.0 Watt	0.050 (1.25)	0.055	50 psi (3.4)	35 psi (2.4)
RB	2.0 Watt	0.030 (0.75)	0.025	100 psi (6.8)	100 psi (6.8)
RB	2.0 Watt	0.040 (1.0)	0.035	100 psi (6.8)	70 psi (4.8)
RB	2.0 Watt	0.050 (1.25)	0.055	100 psi (6.8)	70 psi (4.8)
RB	2.0 Watt	0.060 (1.5)	0.060	50 psi (3.4)	50 psi (3.4)
RB	2.0 Watt	0.080 (2.0)	0.080	25 psi (1.7)	25 psi (1.7)

For other pressure ranges and orifice sizes please contact factory  
 Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



## RB Series

### How to Order

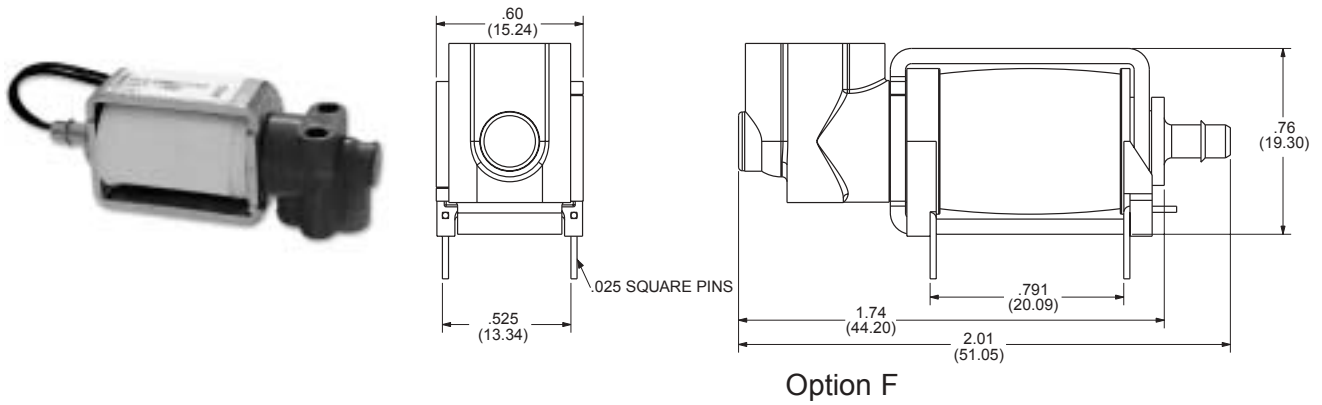


Consult chart (page 7) for allowable combinations of wattage, orifice sizes, and pressure range.

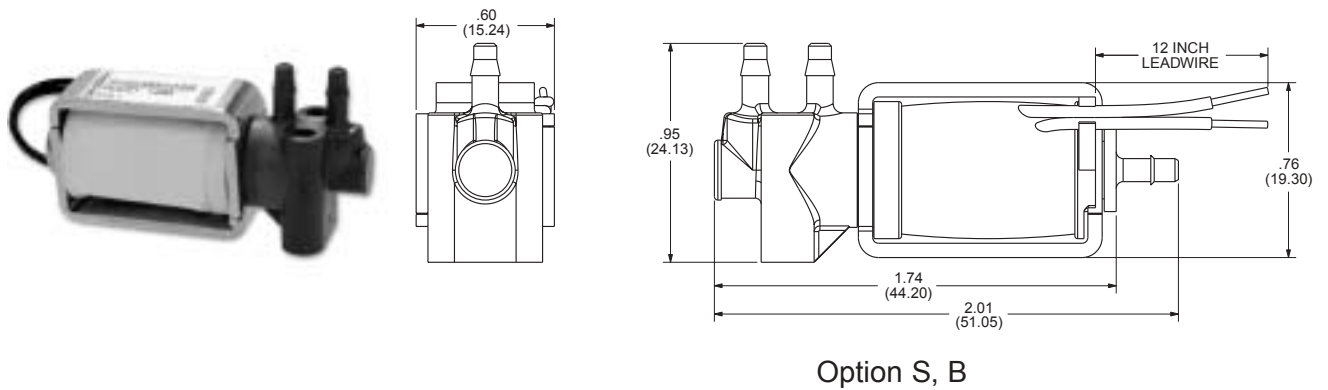


Dimensions

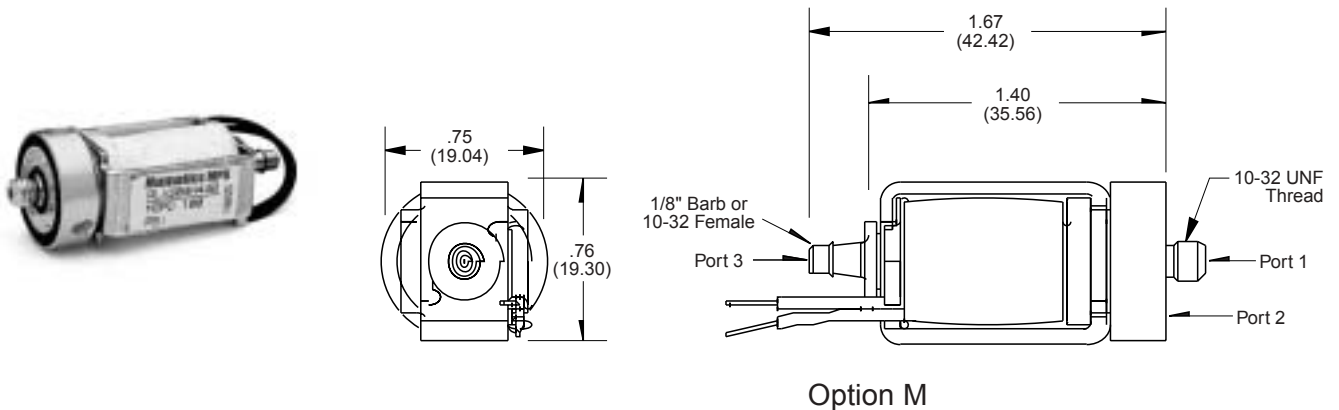
Face Seal RB Valve Dimensions



Body Ported RB with Mounting Holes



RB Manifold Mount Valve



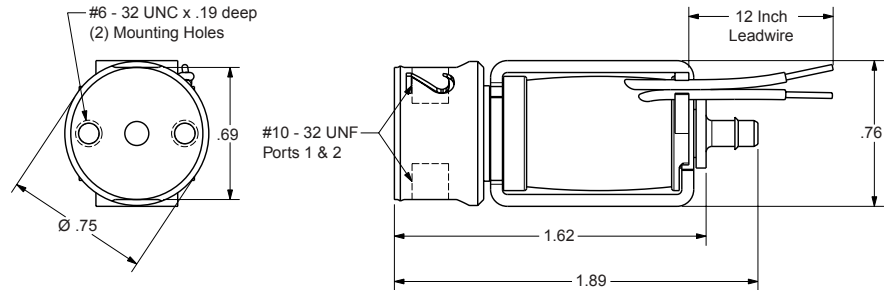
Manifold Dimensions / Part Numbers (Manifold Mount)  
See "S" Series Section

Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



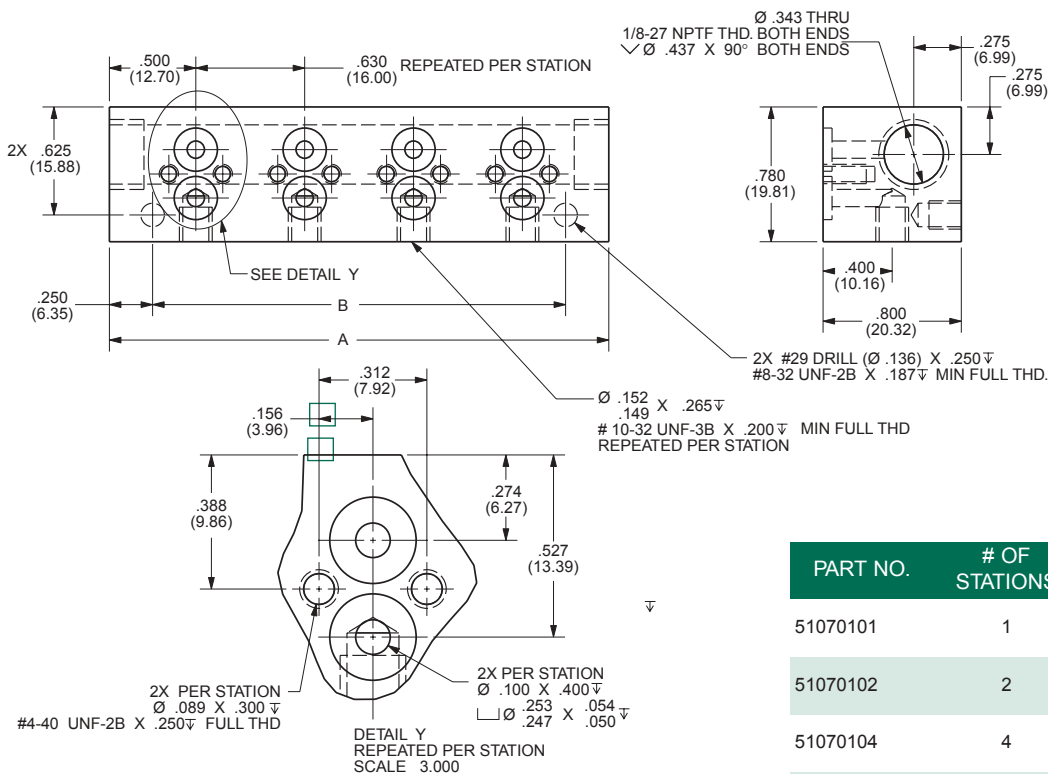
## RB Series

### Inline Mount Valve



Option L

### Manifold Dimensions and Part Numbers (Face Seal Mount)

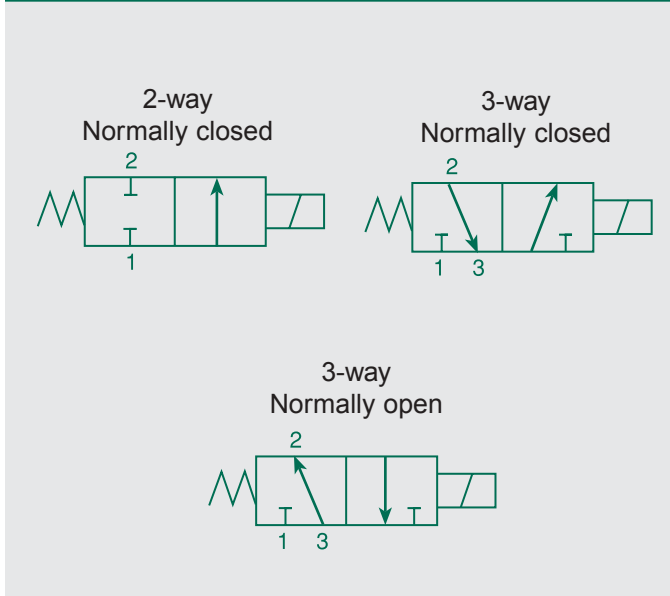


PART NO.	# OF STATIONS	A	B
51070101	1	1.00 (25.4)	0.50 (12.7)
51070102	2	1.63 (41.4)	1.13 (28.7)
51070104	4	2.89 (73.4)	2.39 (60.7)
51070106	6	4.15 (105.4)	3.65 (92.7)
51070108	8	5.41 (137.4)	4.91 (124.7)
51070110	10	6.67 (169.4)	6.17 (156.7)
51070112	12	7.93 (201.4)	7.43 (188.7)

Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



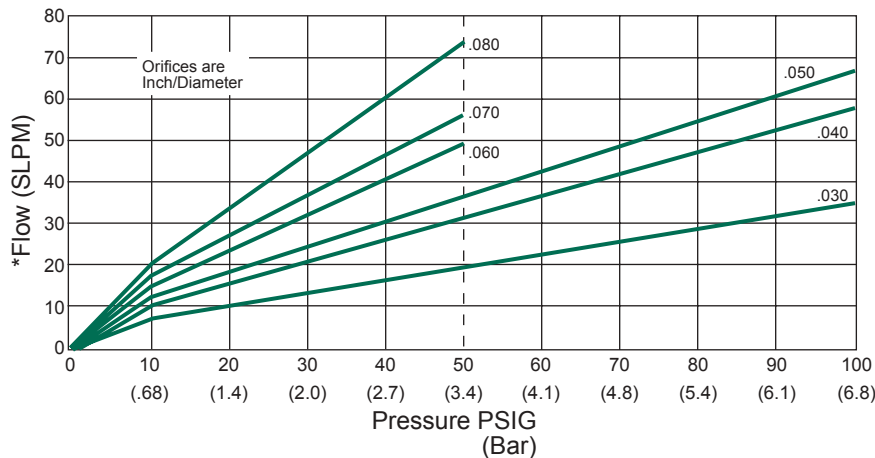
## S Series



### “S” Series Miniature Stainless Steel Valve

- Tested in excess of 500 Million cycles
- Maximum leakage rate: 0.016 SCCM (Bubble Tight)
- Temperature range: -10°F to 150°F (-23°C to 66°C)
- Class “A” Insulated coils
- All valves 100% factory tested
- #20 AWG & #24 AWG Teflon insulated lead wires
- Tin plated brass .110 x .020 Fast-on terminals
- 10 m (Micron) filtration recommended
- Response time < .010 Seconds
- All valves rated to 28" Hg. Vac
- Oxygen Clean available
- Recommended for use with dry air, lubricated air, vacuum, non-corrosive, non-toxic, non-flammable dry gases.
- Consult factory for other service applications.

### Technical Data



\*Flow (SLPM) Standard liters per minute port 1→2. (Normally closed)  
 NOTE: Flow tests are based on average readings and nominal components.  
 All Outlets are vented to atmosphere. Results may vary.

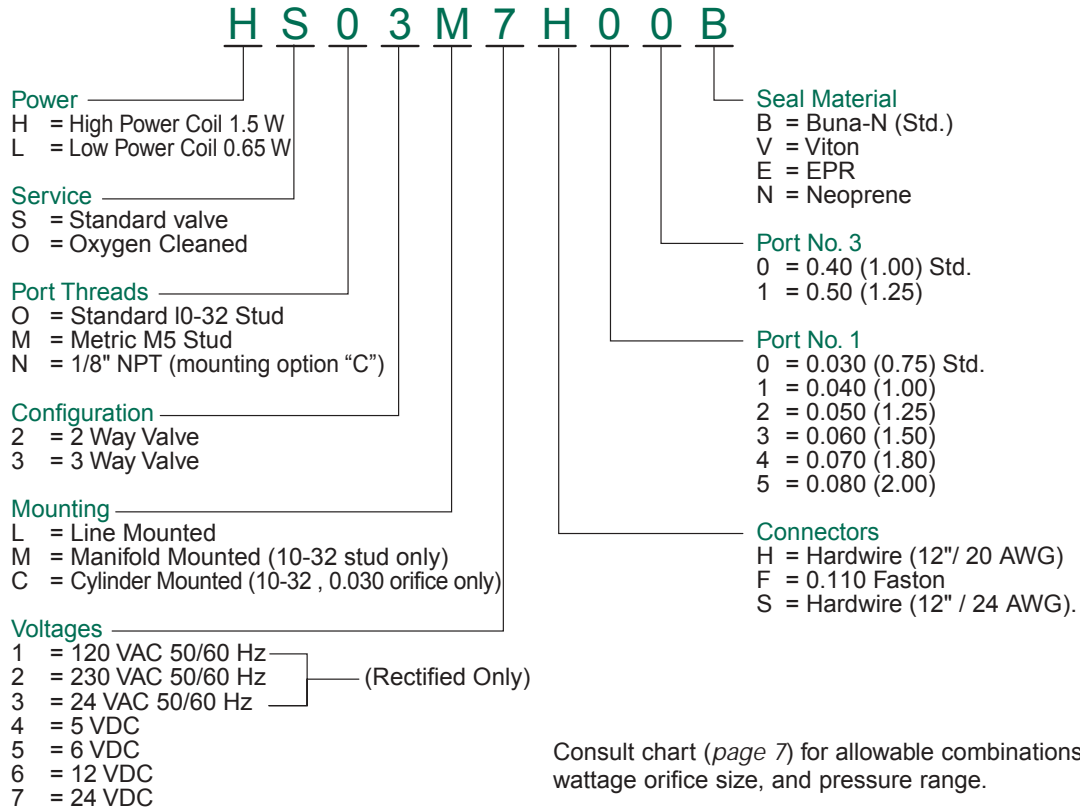
VALVE SERIES	WATTAGE	ORIFICE	CV	MAXIMUM PRESSURE			
				N.C.	N.O.		
LS	0.65 watt	0.030 (0.75)	0.025	100 PSI (6.8)	50 PSI (3.4)		
	1.5 watt	0.030 (0.75)	0.025	100 PSI (6.8)	100 PSI (6.8)		
	1.5 watt	0.040 (1.00)	0.035	100 PSI (6.8)	50 PSI (3.4)		
HS	1.5 watt	0.050 (1.25)	0.055	100 PSI (6.8)	50 PSI (3.4)		
	1.5 watt	0.060 (1.50)	0.065	50 PSI (3.4)	50 PSI (3.4)		
	1.5 watt	0.070 (1.80)	0.075	50 PSI (3.4)	50 PSI (3.4)		
	1.5 watt	0.080 (2.00)	0.100	50 PSI (3.4)	50 PSI (3.4)		

Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



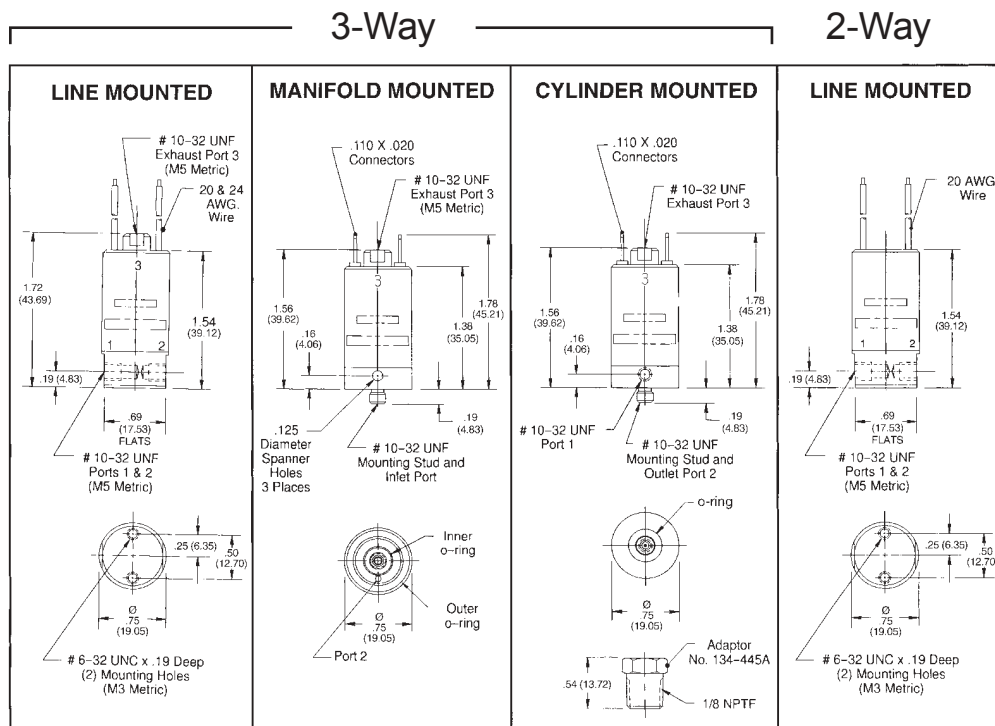
## S Series

### How to Order



Consult chart (page 7) for allowable combinations of wattage orifice size, and pressure range.

### Dimensions



Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



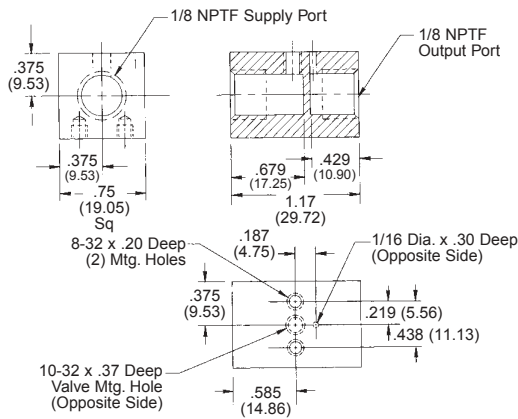


## S Series

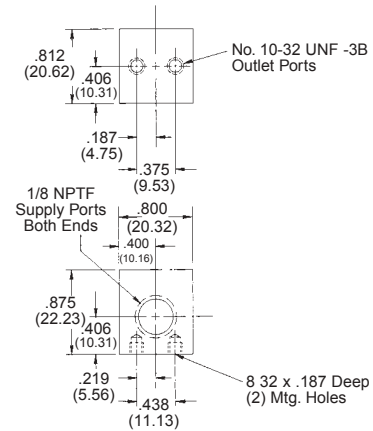
### Manifold Dimensions and Part Numbers (Manifold Mount)

PART NUMBER	NO. OF STATIONS	A	B
106-423	1	1.175	N/A
106-410	2	0.812	N/A
106-411	4	1.593	N/A
106-422	6	2.375 (60.33)	0.845 (21.46)
106-412	8	3.156 (80.16)	1.625 (41.28)
106-413	10	3.937 (99.99)	2.406 (61.11)
106-414	12	4.718 (119.84)	3.187 (80.95)

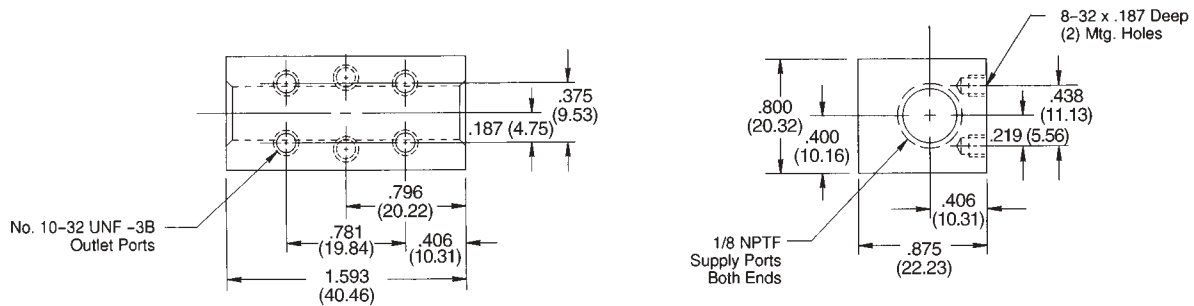
#### SINGLE STATION MANIFOLD No. 106-423



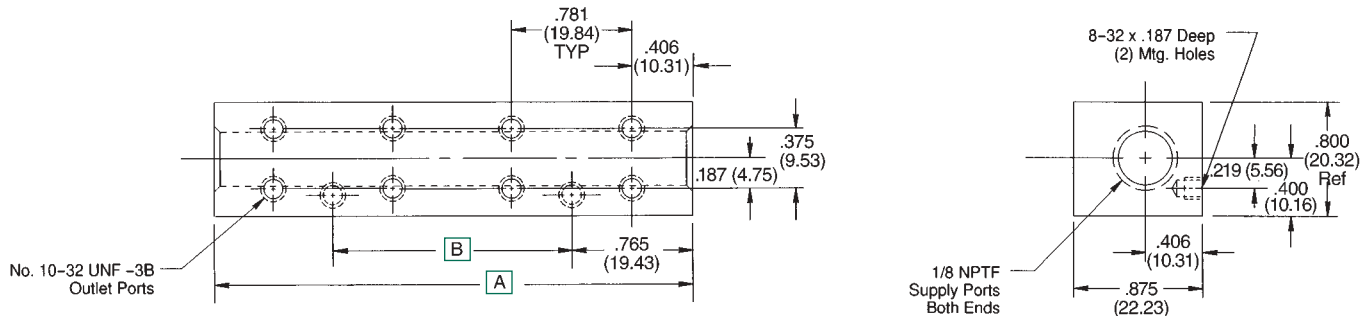
#### 2-STATION MANIFOLD No. 106-410



#### 4-STATION MANIFOLD No. 106-411



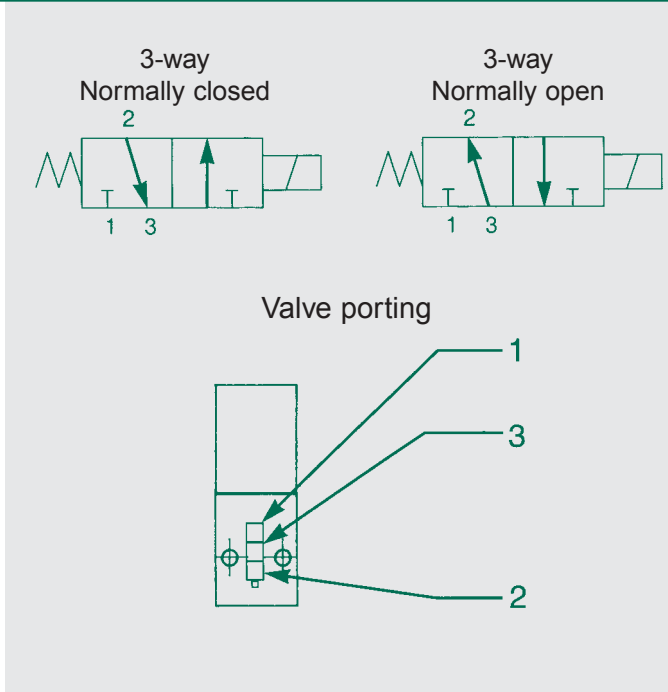
#### MULTI-STATION MANIFOLD



Numbers in parentheses ( ) equivalent to Millimeters or BAR where applicable.



## TM Series



### “TM” Ten Millimeter Miniature Valve

- Tested in excess of 200 Million cycles
- Maximum leakage rate: 0.016 SCCM (Bubble Tight)
- Epoxy Impregnated, Nylon Encapsulated Class “F” continuous duty (ED 100%)
- All valves 100% factory tested
- Circuit board mountable
- All valves rated to 28" Hg. Vac
- Oxygen Clean available
- Female locking connector or hardwire leads available

### Technical Data

Flow Capacity:                      Standard Cv 0.0100  
                                                  Quick Exhaust Cv 0.0137

Operating Pressure:                Vacuum to 100 PSIG (6.9 Bar)  
 Operating Temperature:        23° F to 120° F (-5° C to 50° C)  
 Fluid Temperature:                32° F to 120° F (0° C to 50° C)

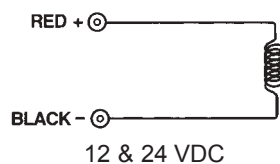
Voltage:                                12 and 24 VDC  
 Power:                                 1.2 Watt (1.35-Watt w/LED)

Response Time:                     < .010 Seconds  
 Filtration:                            10 m (Micron) recommended  
 Wire Gauge:                         #24 AWG Teflon Insulated lead wires

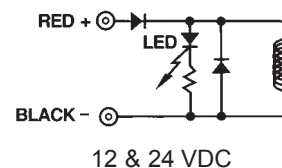
Seal Material:                        Viton  
 Service:                                Recommended for use with dry air, lubricated air, vacuum, non-corrosive, non-toxic, non-flammable dry gases.  
                                                  Consult factory for other service applications.

### Electrical Circuit Layout

Hardwire Circuit Board Mountable Coils

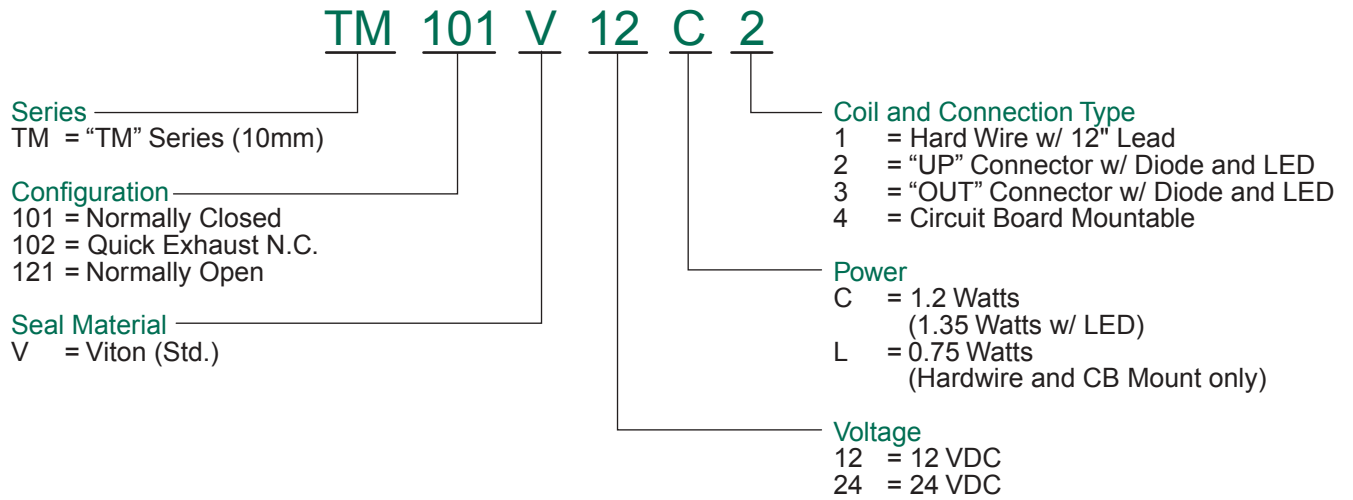


“up” & “out” Coils



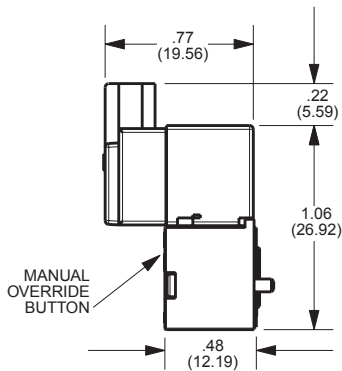


## How to Order

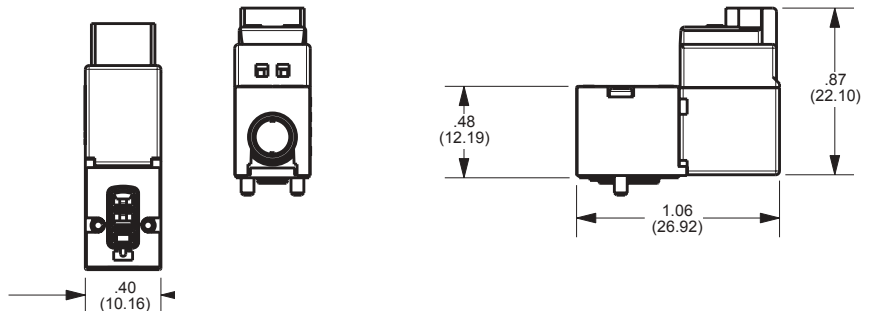


## Dimensions

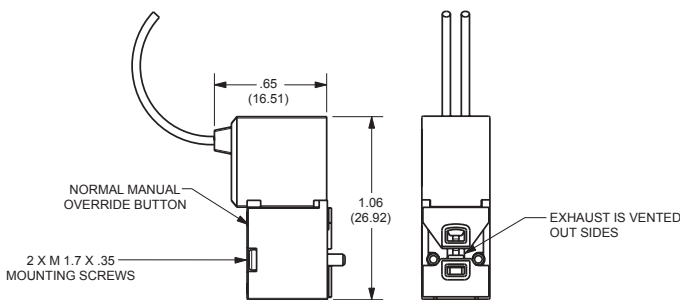
Straight/Out Coil  
with Normally Closed Valve



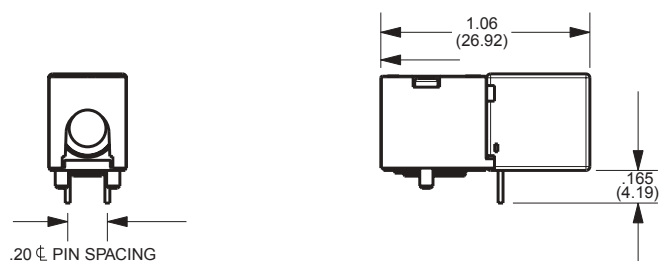
Right Angle/Up Coil



Hardwire Coil  
with Quick Exhaust Valve



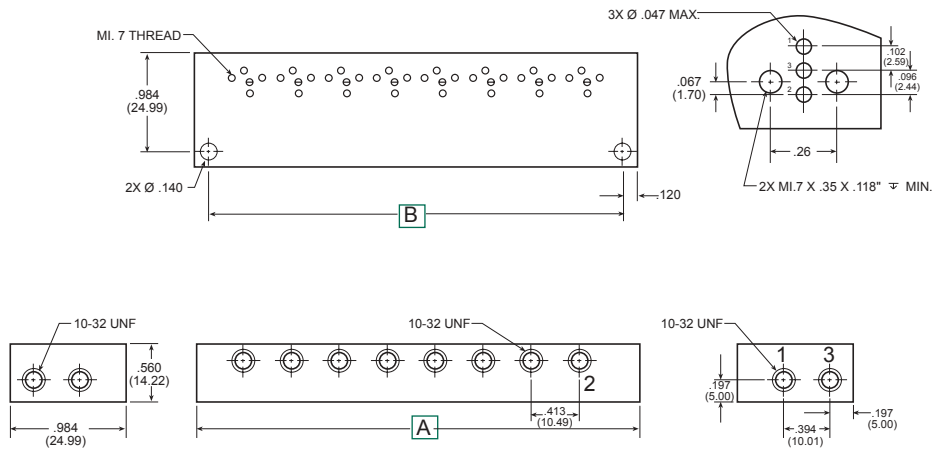
Circuit Board Mountable Coil





## TM Series

### Manifold Dimensions and Part Numbers



#### Manifold Sub Base Overall Dimensions

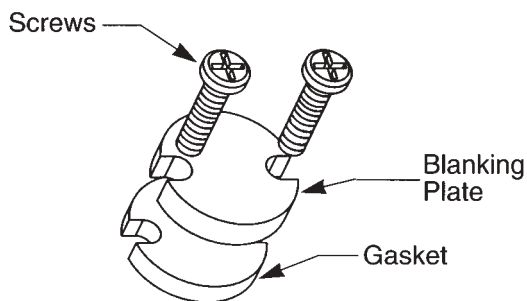
PART NO.	# OF STATIONS	A	B
51030101	1	0.91 (23.1)	0.67 (17.0)
51030102	2	1.32 (33.5)	1.08 (27.4)
51030104	4	2.15 (54.6)	1.91 (48.5)
51030106	6	2.97 (75.4)	2.74 (69.6)
51030108	8	2.97 (75.4)	2.74 (69.6)
51030110	10	4.63 (117.6)	4.39 (111.5)
51030112	12	5.45 (138.4)	5.22 (132.6)

Numatics Miniature Pneumatic Group will assemble valves on manifolds upon request. To specify, add ASM to the end of the manifold part number. Valves are specified separately.

For example: A 4 station assembly

Part#	Qty
51030104ASM	1
TM101V12C1	4

### Blanking Station



Mating Connector Assembly for "out" and "up" coils.

TM10- XX

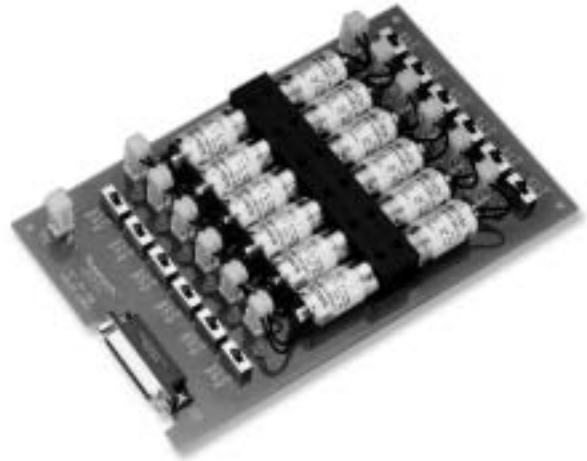
Part #	Wire Length
TM10- <u>12</u>	12" (300mm)
TM10- <u>24</u>	24" (600mm)
TM10- <u>40</u>	40" (1000mm)

\*Part Number 31030005



### Circuit Boards - "S" Series Standard

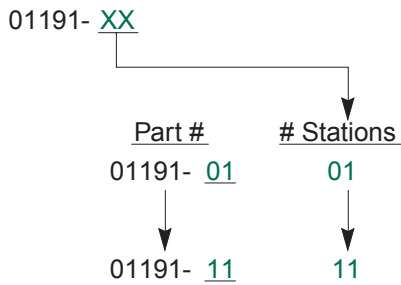
- All stainless steel construction
- High Flow - Cv 0.03 - double the flow of similar valves
- Wide pressure ranges 28" Hg. Vacuum - 100 PSIG
- Unmatched Repeatability
- Multi-fluid compatibility
- Low power draw 0.65 W D.C.
- Cool running
- Fast response time - 5ms
- Durable, Effective, Reliable



### Model Selection Chart

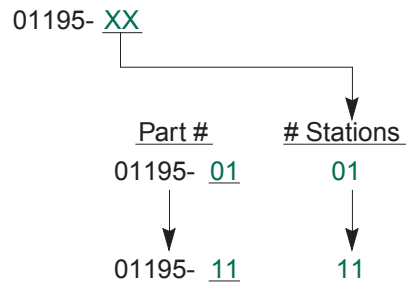
#### 24 VDC

01191 = 12 Station Card

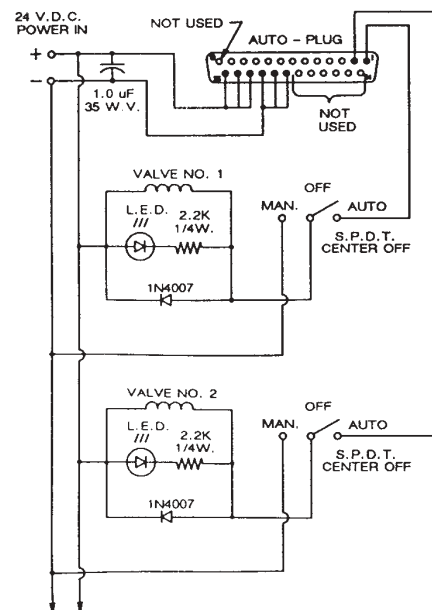
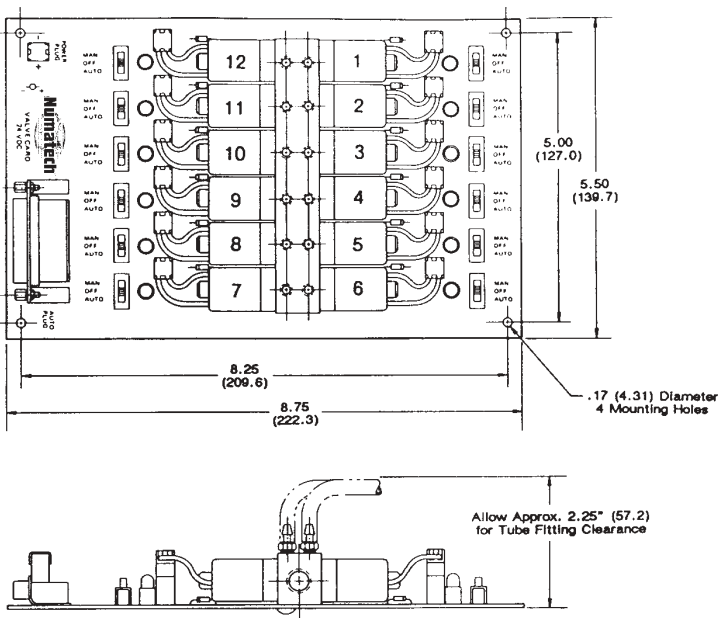


#### 12 VDC

01195 = 12 Station Card



\*Standard "S" Valve cards utilize LS03MXH00B with electrical connector.





## Value-Added Custom Assemblies

### Specialize in “Value Added” and Custom Built Assemblies



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- Custom wire harness assemblies
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- Application specific valve designs
- Custom labeling
- Custom Circuit boards

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