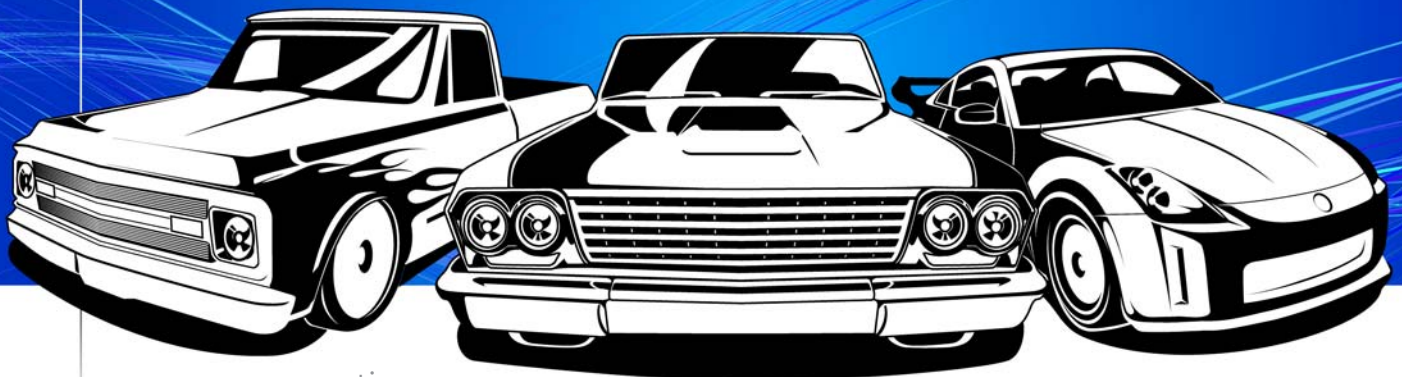


# ASCO<sup>®</sup> numatics<sup>®</sup>

## AIR RIDE SUSPENSION SYSTEMS

Valve Manifold Systems  
Solenoid Valves (Fast Valves)  
Pressure Switches  
Filters (Water Traps)  
Air Bellows & Fittings



[www.asconumatics.com](http://www.asconumatics.com)

## ASCO Numatics Air Ride Components

ASCO Numatics is the ideal supplier for all of your air ride component requirements. Our broad line includes valves, valve manifolds, pressure switches, filters, fittings, and air bellow components. Providing unquestioned reliability, application expertise, and unmatched quality, we're the supplier of choice to get the parts you want when you need them.

### How do air suspension systems work?

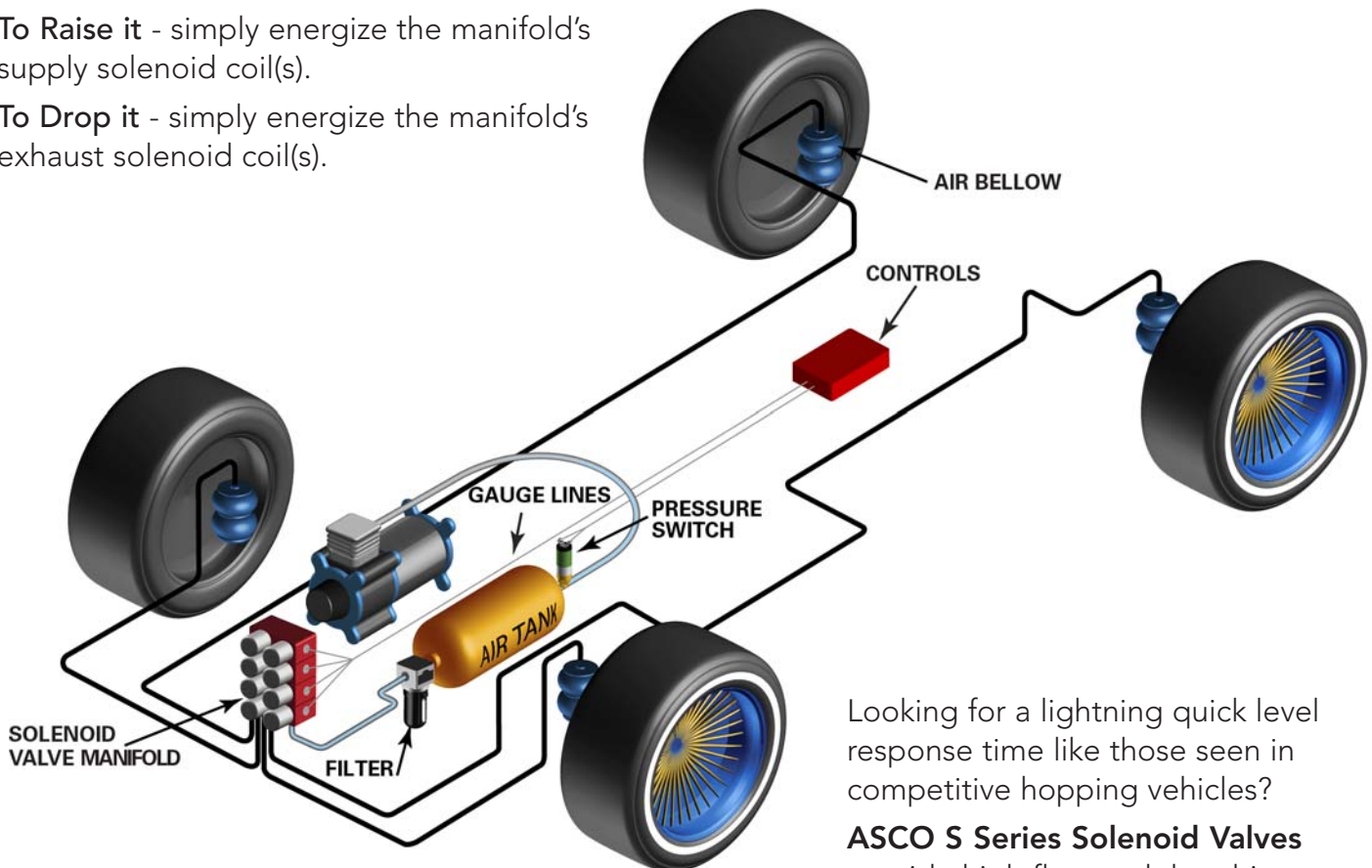
The **compressor** keeps the **air tank** charged with pressurized air. When the pressure in the tank drops below the **ASCO Pressure Switch** set point, the compressor starts up to maintain the tank's pressure.

The **Numatics Filter** (water trap) keeps clean, dry air flowing to the **ASCO Valve Manifold System**. The valves then direct the air flow to the **Numatics Air Bellows**.

**ASCO Valve Manifolds** include a pressure gauge port connection, allowing you to monitor the pressures of each air bellow in your system. **Numatics Fittings** are used to connect the tubing to all of these components.

**To Raise it** - simply energize the manifold's supply solenoid coil(s).

**To Drop it** - simply energize the manifold's exhaust solenoid coil(s).



Looking for a lightning quick level response time like those seen in competitive hopping vehicles?

**ASCO S Series Solenoid Valves** provide high flow and the ultimate performance in extreme air ride suspension systems.



## SERIES 8238 SOLENOID VALVES

Pilot Operated • Brass Body • 3/8" to 1" NPT



### DESCRIPTION

ASCO S solenoid valves are designed for high flow, high reliability air suspension systems. The unique design provides high pressure control at minimal power consumption. DIN connection reduces installation time and decreases installation cost. Available in nickel plated designs for maximum appeal.

### BENEFITS

- High flow
- 300 psi inlet pressure capability
- DIN connection for easy wiring
- Compact size for tight locations
- High ambient temperature rating (176°F) for under hood applications

### OPTIONS

- Nickel plating for show quality finish
- Private labeling
- Mounting bracket #HV282451002
- DIN connector with 6' leads #285481-018

### Specifications

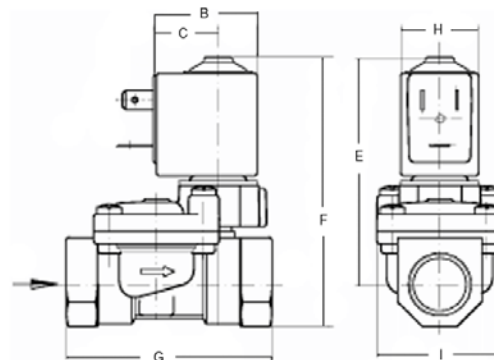
Pipe Size (ins.)	Orifice Dia. (ins.)	Cv Flow	Operating Pressure Differential (psi)				Max. Fluid Temp. °F	Brass	Nickel Plated	Const. Ref.	UL	Wattage DC	Approx. Shipping Weight (lbs.)
			Min.	Max. DC									
				Air-Inert Gas	Water	Light Oil							
<b>General Service - Normally Closed</b>													
3/8	17/32	2.89	5	230	230	230	195	SC8238T402	SC8238T425	1	□	5.5	1.7
1/2	17/32	4.45	5	230	230	230	195	SC8238T405	SC8238T426	2	□	5.5	2.0
3/4	11/16	5.85	5	175	175	175	195	SC8238T408	-	3	□	5.5	2.3
1	15/16	12.87	5	175	175	175	195	SC8238T410	-	4	□	5.5	3.5

□ = Component Solenoid.

### Dimensions: inches

Const. Ref.	B	C	E	F	G	H	I
1	1.08	0.65	2.80	3.23	2.36	0.86	1.57
2	1.08	0.65	2.80	3.43	2.60	0.86	1.57
3	1.08	0.65	2.85	3.78	3.11	0.86	1.97
4	1.08	0.65	3.35	4.49	4.13	0.86	2.80

Const. Ref. 1, 2, 3, 4



# ASCO® VALVE MANIFOLD SYSTEMS

Anodized Aluminum Body • 3/8" NPT

## DESCRIPTION

ASCO Valve Manifolds are engineered to provide maximum flexibility for your air system design. Single valves allow you to raise and lower your vehicle from one point. Dual control manifolds allow for either front to rear or side to side control of your suspension. Quad control manifolds provide you with the flexibility and speed to control each wheel independently providing the ultimate in suspension control.



## BENEFITS

- Gang mountable for easy installation and maintenance
- Rated for air pressures up to 200 psi at ambient and air system temperatures of 32°F to 125°F
- Highest flow manifold on the market with a 0.7 Cv factor with a 7/32" orifice
- 1/8" NPT pressure gauge ports for in-vehicle monitoring of your air system
- Single pressure inlet and exhaust minimizes fittings and plumbing required
- Compact size
- Mounting brackets and assembly kits available



## Selecting a Catalog Number

Color Sample	Color	Single - Controls Entire System	Dual - For Side to Side or Front to Rear Control	Quad - For Side to Side or Front to Rear Control
	Gold	HV283597-001	HV283597-201	HV283597-401
	Silver	HV283597-002	HV283597-202	HV283597-402
	Red	HV283597-004	HV283597-204	HV283597-404
	Aluminum	HV283597-009	HV283597-209	HV283597-409

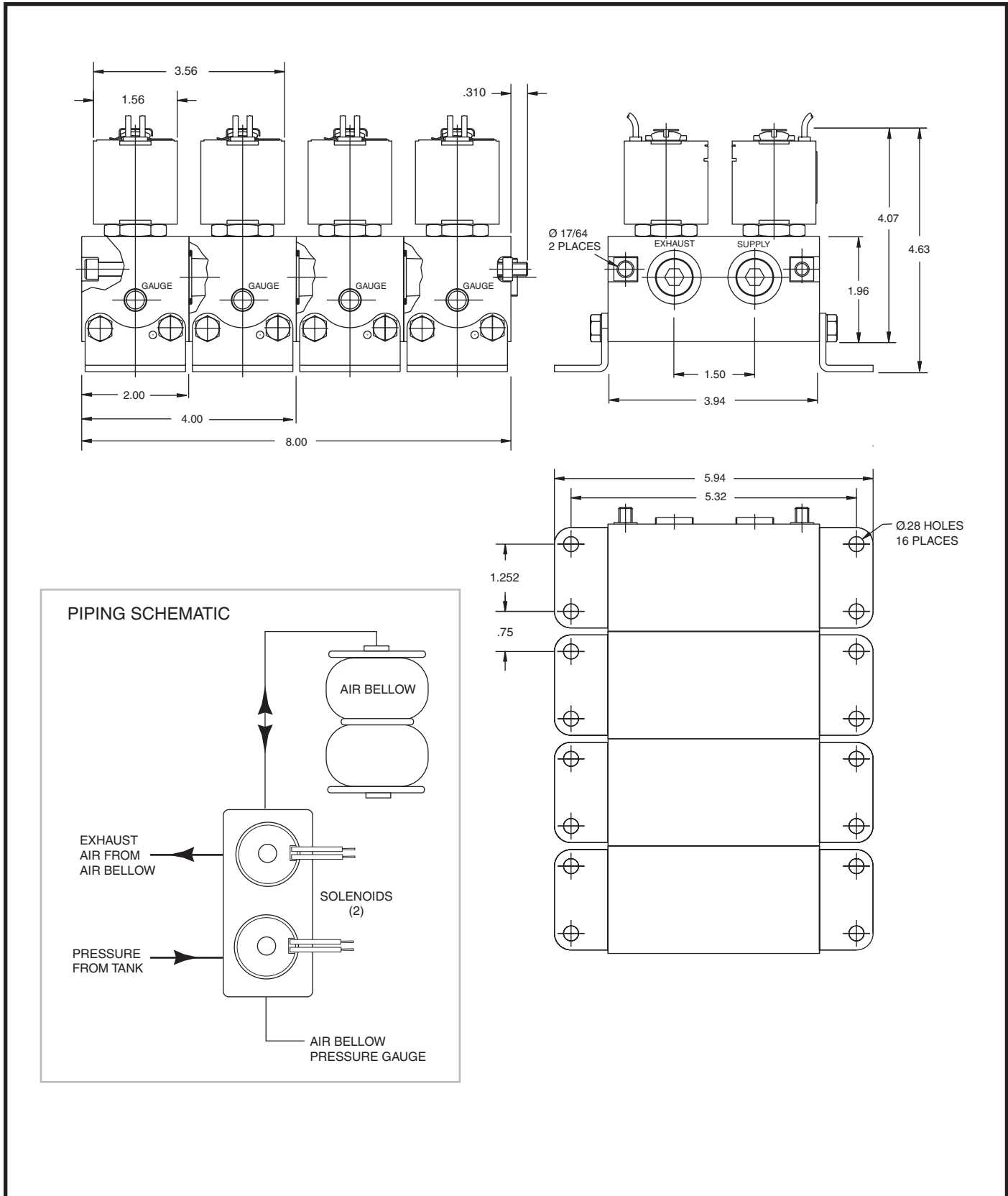
## Kits

Mounting Bracket Kits	323099	2x 323099 required	2x 323099 required
Ganging Kits	① ②	(assembly includes 323098)	(assembly includes 323140)

① - 2 single valves can be attached with 323098 to create a Dual control manifold.

② - 4 single valves can be attached with 323140 to create a Quad control manifold.

## Dimensions: inches



# ASCO<sup>®</sup> PRESSURE SWITCHES

Brass Body • 1/8" to 1/4" NPT

## DESCRIPTION

The ASCO Adjustable Range Pressure Switch line is designed for installation where input pressure parameters are adjusted for personalized control.

The ASCO Fixed Range Pressure Switch line is designed for systems with consistent input pressures.

When mounted directly to your air tank, or in-line between the compressor and tank, the switches ensure reliable control of your ride height.

## BENEFITS

### Adjustable Range

- Adjustable settings for personalized system control
- Hand adjustment eliminates the need for tools
- Long life diaphragm ensures set point repeatability despite environmental temperature variations
- Vibration resistant

### Fixed Range

- Compact size
- Factory preset eliminates the need for calibration
- Sealed against dust, oils, or water for improved life
- Vibration resistant



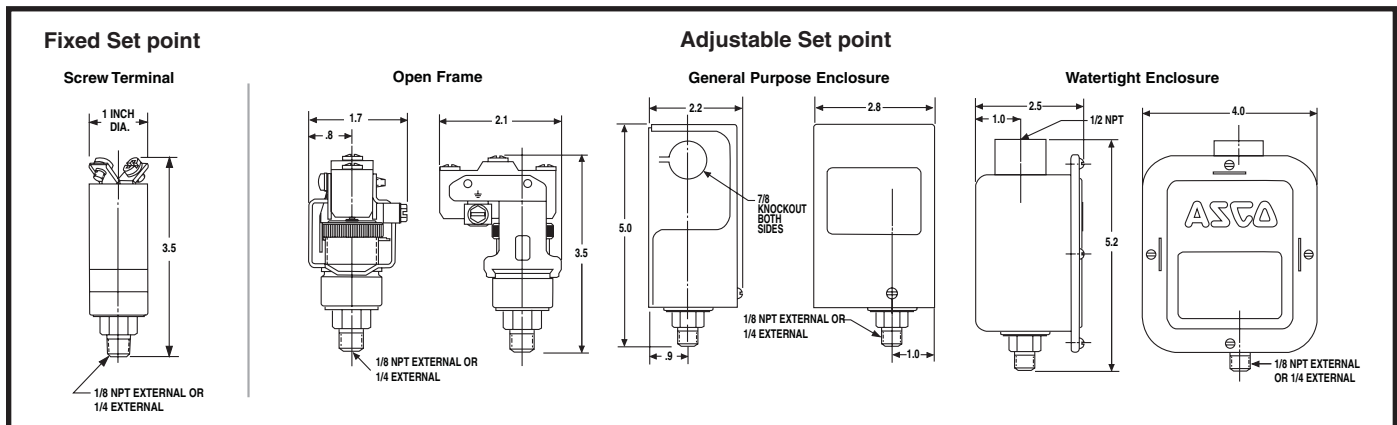
## Adjustable Range Specifications

Catalog Number	Male Pipe Size (ins)	Operation	Diaphragm	Terminals	Adjustable Operating Range (psi)
<b>Open Frame</b>					
HC16A218L	1/8	SPDT (Form C Contact)	NBR	Screw	80-200
HC16A214L	1/4	SPDT (Form C Contact)	NBR	Screw	80-200
<b>General Purpose</b>					
HC10A218	1/8	SPDT (Form C Contact)	NBR	Screw	80-200
HC10A214	1/4	SPDT (Form C Contact)	NBR	Screw	80-200
<b>Watertight</b>					
HC11A218	1/8	SPDT (Form C Contact)	NBR	Screw	80-200
HC11A214	1/4	SPDT (Form C Contact)	NBR	Screw	80-200

## Fixed Range Specifications

Catalog Number	Male Pipe Size (ins.)	Operation	Diaphragm	Terminals	Set Point	
					Decreasing Pressure (psi)	Increasing Pressure (psi)
JC17A218B	1/8	Normally Closed	NBR	Screw	138	162
JC17A214B	1/4	Normally Closed	NBR	Screw	138	162

## Dimensions: inches



## numatics® PARTICULATE FILTERS

Automatic Drain with Bowl Protection • 3/8" to 1/2" NPT

### DESCRIPTION

Numatics Filters (water traps) are designed to provide your air ride suspension system with top quality air. By removing water and particulate, air suspension systems perform more reliably and efficiently, and have longer life.

### BENEFITS

- Semi-automatic drain allows for simple removal of filtered water
- High flow rates maintain air ride suspension system speed
- Metal bowl guard protects the unit from inadvertent breakage

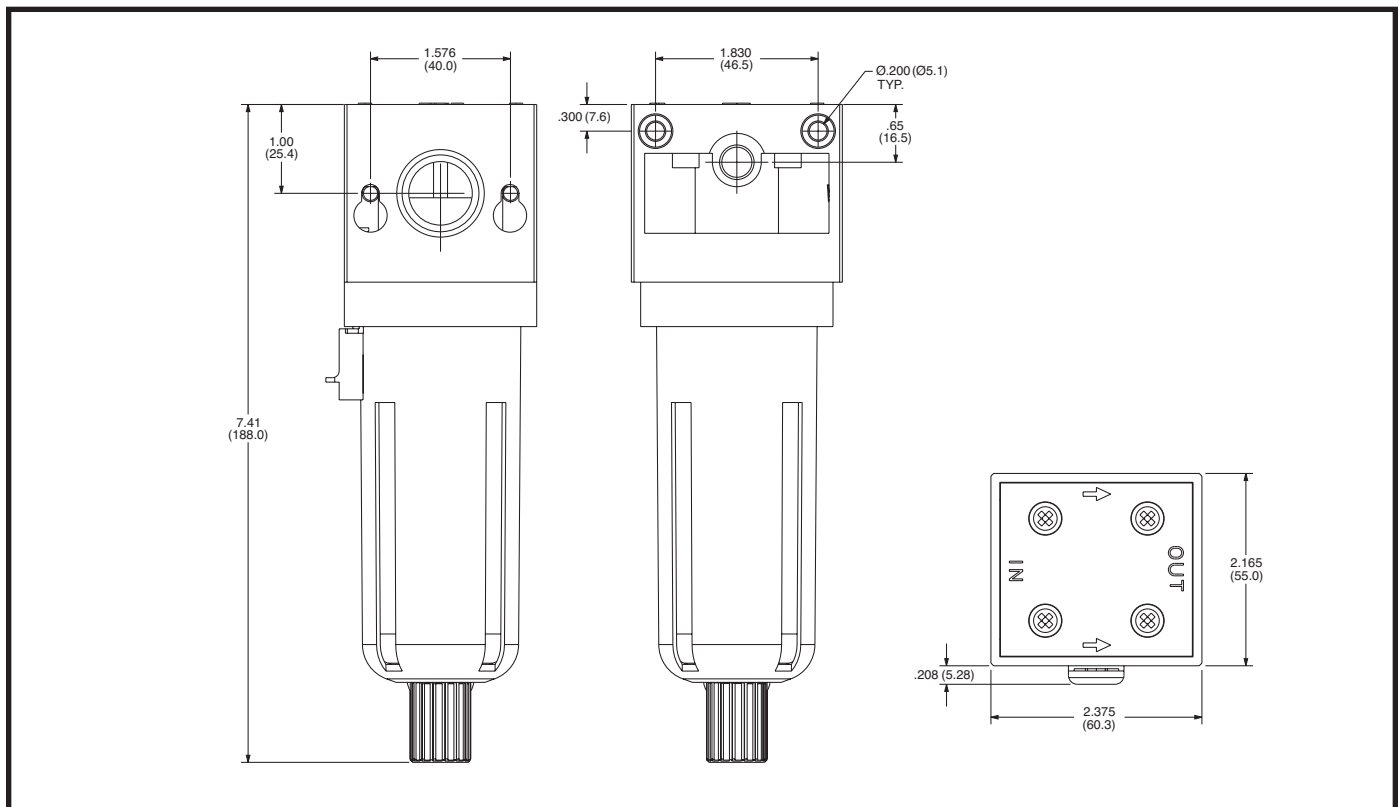


### Specifications

Series	Pipe Size (ins.)	Bowl Capacity (oz.)		Max. Flow @ 90 psi and 1 psi Drop (scfm)	Max. Inlet Pressure (psi) @125°F	Filter Capacity (microns)	Ambient Temp. °F		Automatic Drain with Bowl Protection
		Total	Useful				Min.	Max.	
<b>Filter - 5 Micron Polycarbonate (PC) Bowl</b>									
F22	3/8	3.8	1.3	84.7	150 ①	5	40	120	F22B-03AM
F22	1/2	3.8	1.3	84.7	150 ①	5	40	120	F22B-04AM

① 230 psi @ 75°F max. Ambient & Fluid Temperature.

### Dimensions: inches



# numatics<sup>®</sup> AIR BELLOWS

## DESCRIPTION

Numatics Air Bellows provide load boosting performance for air ride suspension systems.

## BENEFITS

- Vehicle leveling
- Pressure adjustable from 5-100 psi
- Enable complete load stabilization
- Maximizes vehicle load carrying capacity



## Specifications

Part Number	Port Size (ins)	Number of Plies	Plate Diameter	Const. Ref.	Inlet Dia.	Male Mounting Studs	Female Mounting Holes
ASND11-5-1-733	1/2	2	4.25"	1	1/2 - 14	3/8 - 16 UNC	3/8 - 16 UNC
ASND18-5-1-734	1/2	2	5.50"	2	1/2 - 14	3/8 - 24 UNF	3/8 - 16 UNC
ASND11-5-1-738	1/4	2	4.25"	1	1/4 - 18	3/8 - 16 UNC	3/8 - 16 UNC
ASND18-5-1-739	1/4	2	5.50"	3	1/4 - 18	3/8 - 16 UNC	3/8 - 16 UNC
ASND11-5-1-740	3/8	2	4.25"	1	3/8 - 18	3/8 - 16 UNC	3/8 - 16 UNC
ASND18-5-1-741	3/8	2	5.50"	2	3/8 - 18	3/8 - 24 UNF	3/8 - 16 UNC
ASND11-5-1-744	1/2	4	4.25"	1	1/2 - 14	3/8 - 16 UNC	3/8 - 16 UNC
ASND18-5-1-745	1/2	4	5.50"	2	1/2 - 14	3/8 - 24 UNF	3/8 - 16 UNC

## Dimensions: inches

**Air Bellows Dimensions**

Const. Ref.	A	B	Min. Height (H1)	Extended Height at 20 psi (H2)
1	4.21	6.70	2.80	8.75
2	5.49	8.00	2.80	8.50
3	5.49	8.00	2.80	8.75

**Mounting Plate Dimensions**

Part Number	C	D	E
ASND11-5-1-733	1.75	0.79	-
ASND18-5-1-734	2.75	1.38	2.75
ASND11-5-1-738	1.75	0.79	-
ASND18-5-1-739	1.75	0.75	-
ASND11-5-1-740	1.75	0.79	-
ASND18-5-1-741	2.75	1.38	2.75
ASND11-5-1-744	1.75	0.79	-
ASND18-5-1-745	2.75	1.38	2.75

**Mounting Plate Dimensions**

**-733, -738, -740, -744**

**-734, -741, -745**

**-739**

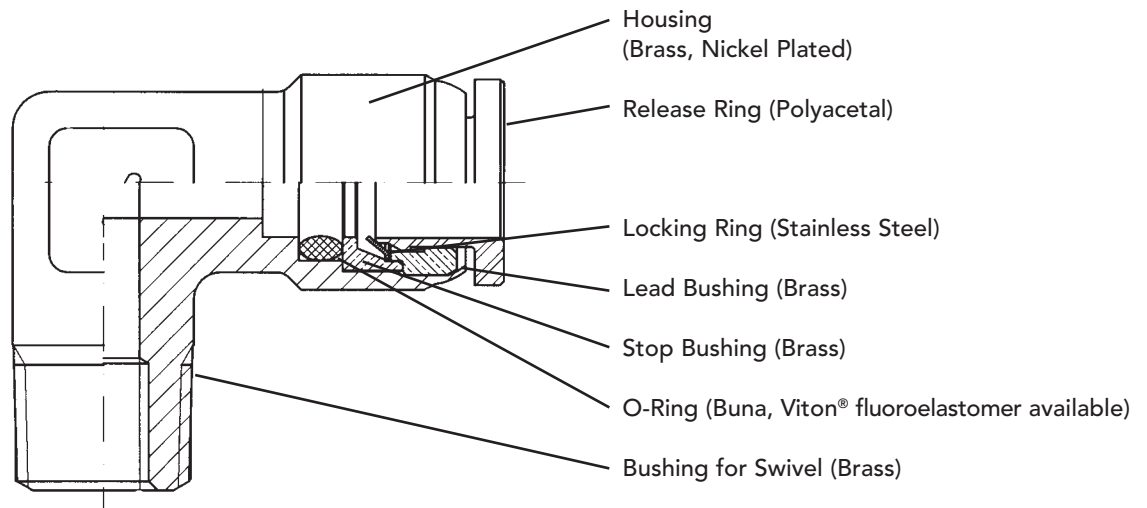
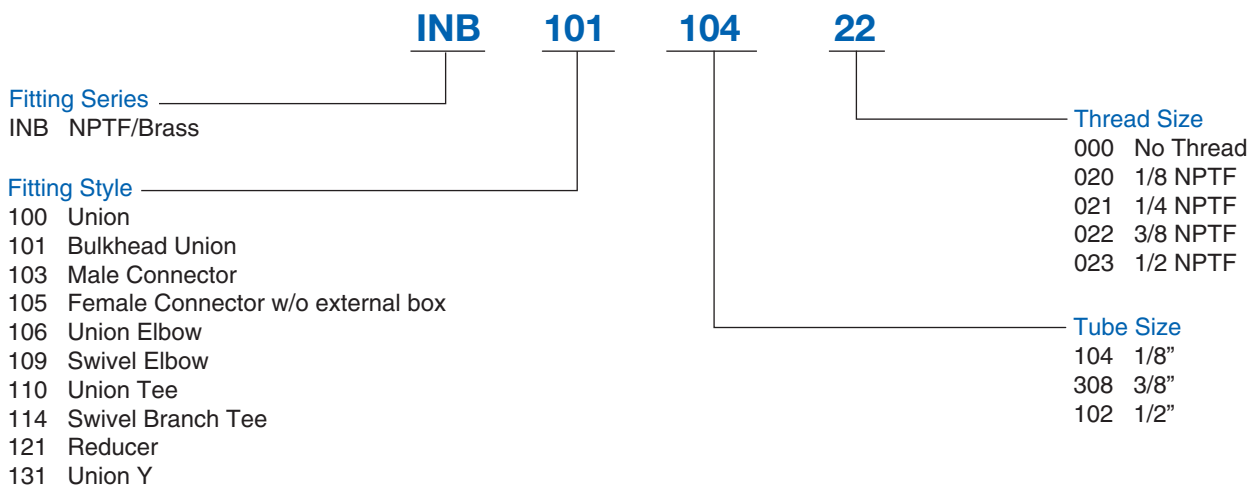
# numatics® TUBE FITTINGS & ACCESSORIES

## BENEFITS

- Pressure rating to 265 psi
- Temperature range: -20°F to 176°F
- Push-in fittings with NPTF threads
- Teflon® thread sealant
- Tube diameter: 1/8" to 1/2"
- Thread size: 1/8" NPTF to 1/2" NPTF



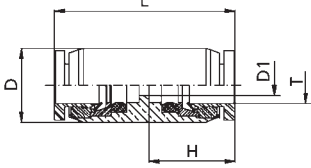
## HOW TO ORDER



Viton is a registered trademark of DuPont Performance Elastomers.  
Teflon is a registered trademark of DuPont Co.

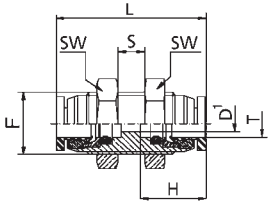
### Dimensions: inches

#### IN100 Union



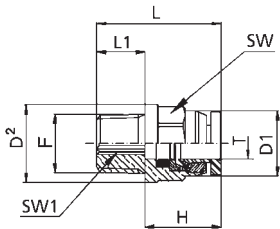
Brass Release Ring	INB100	Tube Diameter T	D	D1	L	H
INB	100-104-000	1/4	0.472	0.157	1.110	0.531
INB	100-308-000	3/8	0.709	0.276	1.398	0.669
INB	100-102-000	1/2	0.787	0.413	1.575	0.748

#### IN101 Bulkhead Union



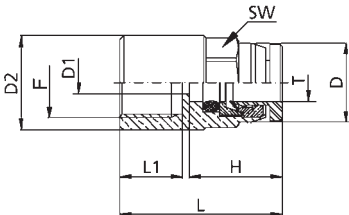
Brass Release Ring	INB101	Tube Diameter T	Thread F	D1	L	H	SW	S MAX
INB	101-104-000	1/4	M12x1	0.157	1.244	0.531	0.630	0.315
INB	101-308-000	3/8	M19x1	0.276	1.614	0.669	0.866	0.433
INB	101-102-000	1/2	M22x1	0.413	1.850	0.748	1.024	0.591

#### IN103 Male Connector



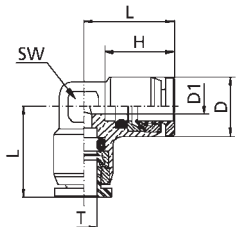
Brass Release Ring	INB103	Tube Diameter T	Thread F	D1	D2	L	L1	H	SW	SW1
INB	103-104-020	1/4	1/8 NPTF	0.472	0.551	0.886	0.374	0.531	1/2	5/32
INB	103-104-021	1/4	1/4 NPTF	0.472	0.551	1.024	0.512	0.531	1/2	5/32
INB	103-104-022	1/4	3/8 NPTF	0.472	0.709	1.024	0.512	0.531	1/2	5/32
INB	103-308-020	3/8	1/8 NPTF	0.669	0.787	1.114	0.374	0.669	11/16	7/32
INB	103-308-021	3/8	1/4 NPTF	0.669	0.787	1.232	0.512	0.669	11/16	1/4
INB	103-308-022	3/8	3/8 NPTF	0.669	0.787	1.232	0.512	0.669	11/16	1/4
INB	103-308-023	3/8	1/2 NPTF	0.669	0.866	1.390	0.709	0.669	11/16	1/4
INB	103-102-021	1/2	1/4 NPTF	0.827	0.906	1.339	0.512	0.748	13/16	1/4
INB	103-102-022	1/2	3/8 NPTF	0.827	0.906	1.339	0.512	0.748	13/16	3/8
INB	103-102-023	1/2	1/2 NPTF	0.827	0.906	1.496	0.709	0.748	13/16	3/8

#### IN105 Female Connector



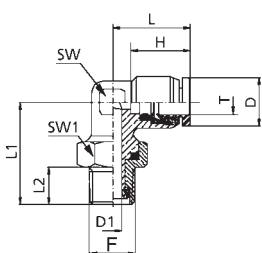
Brass Release Ring	INB105	Tube Diameter T	Thread F	D	D1	D2	L	L1	H	SW
INB	105-104-020	1/4	1/8 NPTF	0.472	0.157	0.551	0.965	0.335	0.531	1/2
INB	105-104-021	1/4	1/4 NPTF	0.472	0.157	0.669	1.142	0.472	0.531	1/2
INB	105-308-021	3/8	3/8 NPTF	0.669	0.276	0.866	1.248	0.472	0.669	3/4
INB	105-308-022	3/8	3/8 NPTF	0.669	0.276	0.866	1.366	0.495	0.669	11/16

#### IN106 Union Elbow



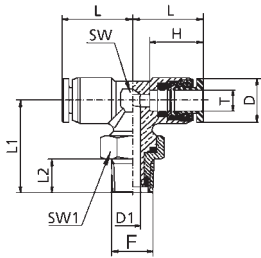
Brass Release Ring	INB106	Tube Diameter T	D	D1	L	H	SW
INB	106-104-000	1/4	0.472	0.157	0.740	0.531	0.433
INB	106-308-000	3/8	0.709	0.295	1.004	0.669	0.630
INB	106-102-000	1/2	0.827	0.413	1.161	0.748	0.685

#### IN109 Swivel Elbow



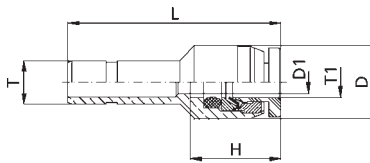
Brass Release Ring	INB109	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW	SW1
INB	109-104-020	1/4	1/8 NPTF	0.472	0.157	0.740	0.906	0.374	0.531	0.433	0.512
INB	109-104-021	1/4	1/4 NPTF	0.472	0.236	0.740	1.031	0.512	0.531	0.433	0.591
INB	109-104-022	1/4	3/8 NPTF	0.472	0.236	0.740	1.071	0.512	0.531	0.433	0.709
INB	109-308-020	3/8	1/8 NPTF	0.669	0.157	1.043	1.043	0.374	0.669	0.630	0.512
INB	109-308-021	3/8	1/4 NPTF	0.669	0.236	1.043	1.181	0.512	0.669	0.630	0.591
INB	109-308-022	3/8	3/8 NPTF	0.669	0.315	1.043	1.220	0.512	0.669	0.630	0.709
INB	109-308-023	3/8	1/2 NPTF	0.669	0.315	1.043	1.358	0.709	0.669	0.630	0.866
INB	109-102-021	1/2	1/4 NPTF	0.827	0.236	1.181	1.299	0.512	0.748	0.685	0.591
INB	109-102-022	1/2	3/8 NPTF	0.827	0.315	1.181	1.299	0.512	0.748	0.685	0.709
INB	109-102-023	1/2	1/2 NPTF	0.827	0.315	1.181	1.476	0.709	0.748	0.685	0.866

## IN114 Swivel Branch Tee



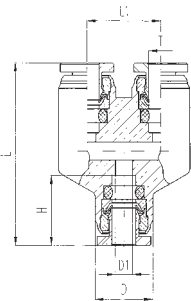
Brass Release Ring	INB114	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW	SW1
INB	114-104-020	1/4	1/8 NPTF	0.472	0.157	0.740	0.906	0.374	0.531	0.433	0.512	
INB	114-104-021	1/4	1/4 NPTF	0.472	0.236	0.740	1.142	0.512	0.531	0.433	0.591	
INB	114-104-022	1/4	3/8 NPTF	0.472	0.236	0.740	1.181	0.512	0.531	0.433	0.709	
INB	114-308-020	3/8	1/8 NPTF	0.709	0.157	1.043	1.043	0.374	0.669	0.630	0.709	
INB	114-308-021	3/8	1/4 NPTF	0.709	0.236	1.043	1.181	0.512	0.669	0.630	0.591	
INB	114-308-022	3/8	3/8 NPTF	0.709	0.315	1.043	1.220	0.512	0.669	0.630	0.709	
INB	114-308-023	3/8	1/2 NPTF	0.709	0.315	1.043	1.358	0.709	0.669	0.630	0.866	
INB	114-102-021	1/2	1/4 NPTF	0.827	0.236	1.181	1.299	0.512	0.748	0.685	0.591	
INB	114-102-022	1/2	3/8 NPTF	0.827	0.315	1.181	1.299	0.512	0.748	0.685	0.709	
INB	114-102-023	1/2	1/2 NPTF	0.827	0.315	1.181	1.476	0.709	0.748	0.685	0.866	

## IN121 Reducer



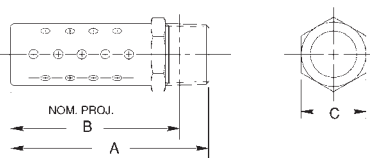
INB121	T	T1	D	D1	L	H
INB121-308-104	3/8	1/4	0.472	0.157	1.339	0.531
INB121-102-104	1/2	1/4	0.472	0.157	1.417	0.531
INB121-102-308	1/2	3/8	0.669	0.295	1.673	0.669

## IN131 Reducer



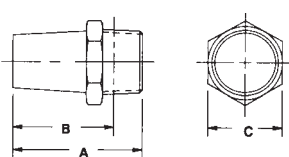
Brass Release Ring	INB131	Tube Diameter	T	L	H	L1	D	D1
INB	131-104-000	1/4	1.398	0.531	0.598	0.472	0.157	

## M Series Metal Air Silencer



Model	NPTF	A	B	C	Cv
M3MN	3/8	2.25	2.00	0.69	5.08
M4MN	1/2	2.72	2.41	0.88	7.32

## P Series Porous Bronze Air Silencer



Model	NPTF	A	B	C	Cv
P3MN	3/8	1.45	1.20	0.69	2.30
P4MN	1/2	1.89	1.58	0.88	5.66

# ASCO Numatics offers a wide range of valves and components for onboard air systems and other automotive related applications.

**ASCO Numatics valves and control components are used on some of the following vehicles:**

**Trains and buses** – brakes, suspensions, and door controls

**Heavy duty trucks** – turbocharger, suspension, transmission, and coolant control systems

**Street cleaning equipment** – water and cleaner control valves

**Heavy construction equipment** – control valves for transmissions

**Racing vehicles** – fuel shutoff valves

**Fuel cell powered vehicles**

**ASCO Numatics valves and components are also used in these related industries:**

- Tire manufacturing facilities
- Auto painting facilities
- Automotive assembly robots
- Car wash water and cleaner control systems
- Fueling stations – in the pumps and for vapor recovery

## Global Contacts

[www.asconumatics.com](http://www.asconumatics.com)

### ASCO

Location	Phone	E-mail
<b>World headquarters (U.S.A.)</b>	<b>(1) 800-972-ASCO (2726)</b>	<b>info-valve@asco.com</b>
Australia	(61) 2-9-451-7077	
Brazil	(55) 11-4208-1700	
Canada	(1) 519-758-2700	
China	(86 21) 6333-0808	
France	(33) 1-47-14-32-00	
Germany	(49) 7237-9960	
Japan	(81) 798-65-6361	
Mexico	(52) 55-3640-0200	
Singapore	(65) 6556-1100	
United Kingdom	(44) 1695-713600	



### NUMATICS

Location	Phone	E-mail
<b>World headquarters (U.S.A.)</b>	<b>(1) 248-887-4111</b>	<b>marketing@numatics.com</b>
<b>U.S.A.</b>		
Numatics air preparation	(1) 810-667-3900	
Numatics valves & fittings	(1) 248-887-4111	
Numatics air bellows	(1) 519-452-1777	
<b>Canada</b>		
Numatics, Ltd. Ontario	(1) 519-452-1777	
Numatics, Ltd. Quebec	(1) 514-332-6444	
Numatics, Ltd. British Columbia	(1) 604-538-0400	
<b>Mexico</b>		
Numatics de Mexico S.A. de C.V.	(52) 222-284-6176	