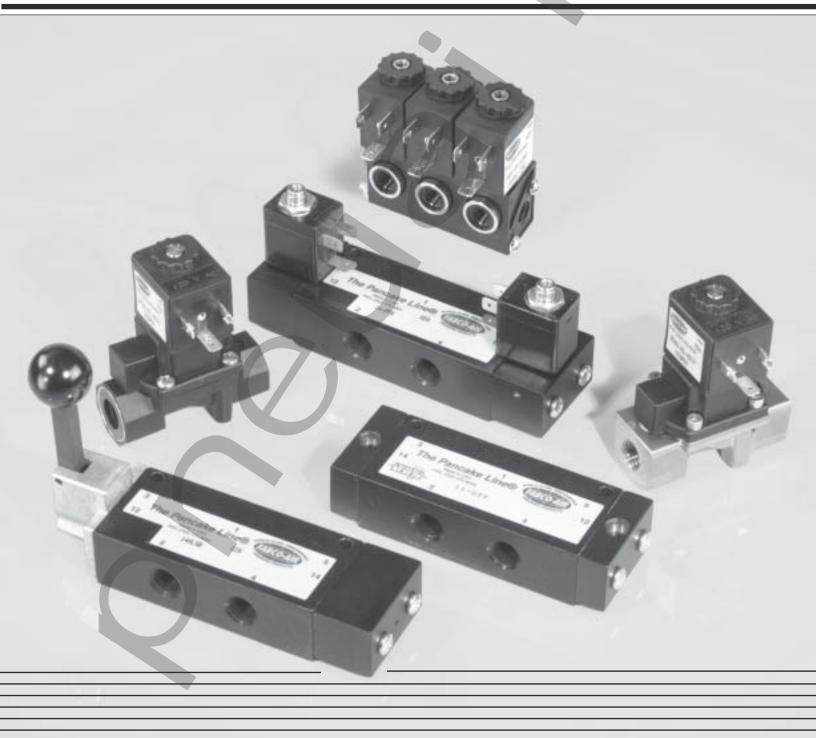


# **Specialty & Control Valves**

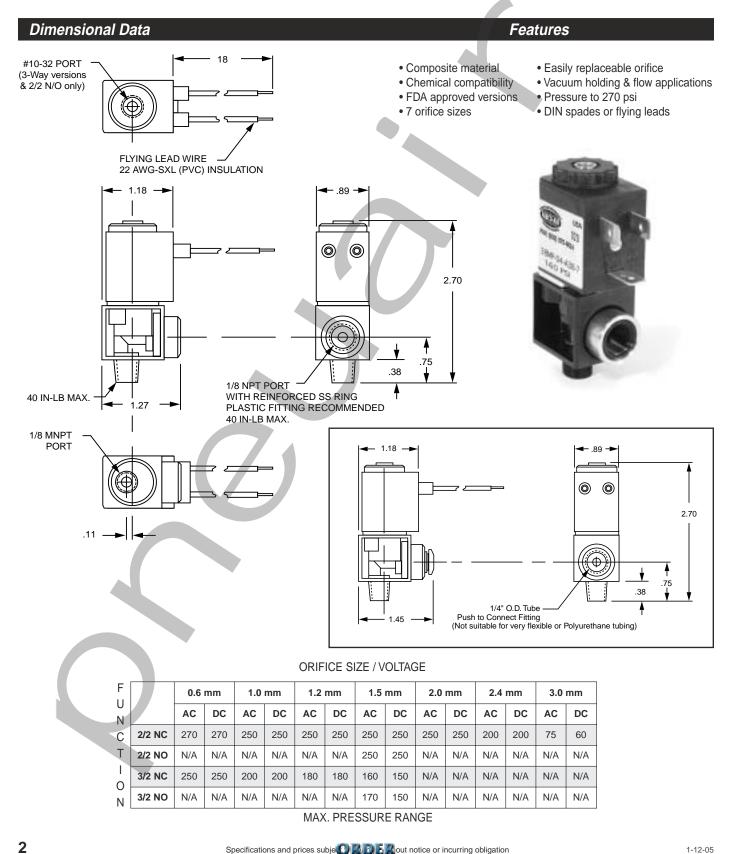




Directional Control Valves Composite Solenoid Valve, 2 & 3-Way Series 38MP Normally Closed or Normally Open

The Series 38MP is a 3 or 2 way, 2 position composite body solenoid valve designed to take the place of a fitting using a female inlet and male outlet port. The valve is generally mounted into an air cylinder port to control a single acting linear actuator. Component features include the proven solenoid operator available in brass/stainless or all stainless pilot design, optional seal materials and nylon encapsulated coil. The "basket" orifice design feature allows the possibility of changing the orifice diameter to meet flow requirements.

The DuPont Zytel FE 5015, FDA approved composite material is media compatible eliminating the need for stocking multiple body materials.



Documents Provided by Coast Pneumatics

Specifications and prices subje 2 2 5 2 out notice or incurring obligation

Directional Control Valves Normally Closed or Normally Open

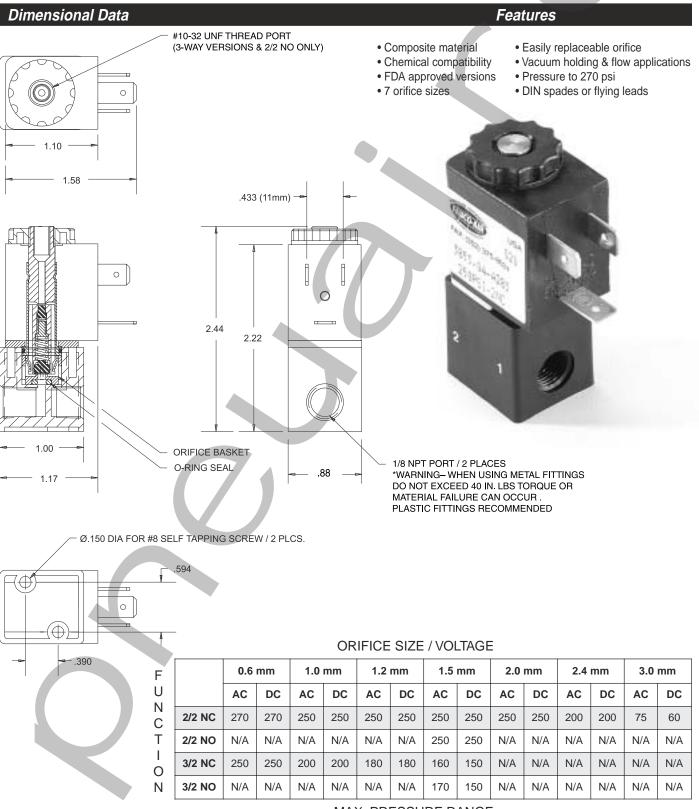
#### Technical Data

Technical Data				
Function:	2-way, 2 positi direct acting, r	ion and 3-way, 2 position normally closed or normall	y open	
Port Sizes:	2/2 NC 2/2 NO 3/2 NC	Inlet 1/8 Male NPT 1/8 Male NPT 1/8 NPT or 1/4" Push-to-connect 10-32 TOP	Outlet 1/8 NPT or 1/4" Push-to-connect 10-32 TOP 1/8 Male NPT 1/8 Male NPT	Exhaust  10-32 TOP 1/8 NPT
Orifice Sizes/ Flow Factor:	0.6 mm / .025 1.0 mm / .05 C 1.2 mm / .065 1.5 mm / .08 C 2.0 mm / .17 C 2.4 mm / .24 C 3.0 mm / .31 C			
Pressure Range:	0-270 PSI (dej	pending on orifice size and	d function)	
Temp. Range:	(Media 90°C n	nax.) Ambient - 10 to +50°	°C	
Response Time:	12-14 ms com	plete cycle		
Materials:	Operator: Shading Ring: Springs: Seals: Valve Body:	Copper 300 Series Stainless Viton standard (other	and Brass standard (400 and materials available on reques Zytel FE 5105. FDA Approve	it)
Media:	Air, oil, inert ga	as, water, caustics, etc.		
Mounting:	1/8 NPT male	port		
Coil Data:	DIN spades (1 5 watt standar All standard in Voltage Tolera	d (other wattages availabl dustrial voltages ance: +/- 10%	ads - 22 ga. wire w/PVC insu	-
		7		

Directional Control Valves Composite Solenoid Valve, 2 & 3-Way Series 3853 Normally Closed or Normally Open

The Series 3853 is a composite body solenoid valve offered in both 2-way and 3-way normally open or closed functions and seven orifice sizes. Component features include the proven solenoid operator available in brass/stainless or all stainless pilot design, optional seal materials and nylon encapsulated coil. The "basket" orifice design feature allows the possibility of changing the orifice diameter to meet flow requirements.

The DuPont Zytel FE 5105, FDA approved composite material is media compatible eliminating the need for stocking multiple body materials.



#### MAX. PRESSURE RANGE

Directional Control Valves Composite Solenoid Valve, 2 & 3-Way Normally Closed or Normally Open

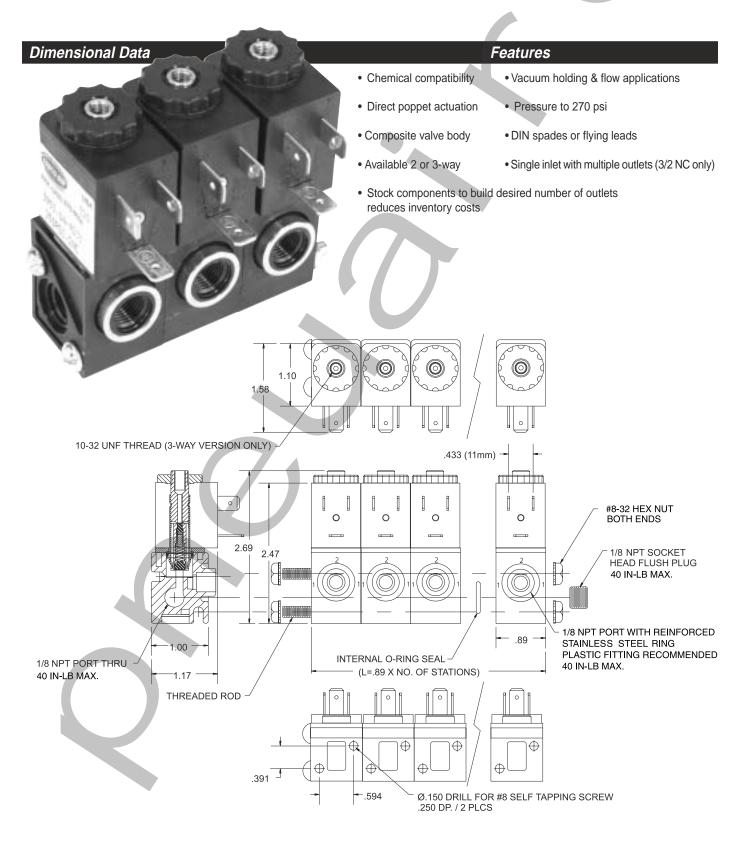
#### Technical Data

Technical Data	
Function:	2-way, 2 position and 3-way, 2 position direct acting, normally closed or normally open
Port Sizes:	Function         Inlet         Outlet         Exhaust           2/2 NC         1/8 NPT         1/8 NPT            2/2 NO         1/8 NPT         10-32 TOP            3/2 NC         1/8 NPT         1/8 NPT         10-32 TOP           3/2 NO         10-32 TOP         1/8 NPT         1/8 NPT           3/2 NO         10-32 TOP         1/8 NPT
Orifice Sizes/ Flow Factor:	0.6 mm / .025 Cv 1.0 mm / .05 Cv 1.2 mm / .065 Cv 1.5 mm / .08 Cv 2.0 mm / .17 Cv 2.4 mm / .24 Cv 3.0 mm / .31 Cv
Pressure Range:	0-270 PSI (depending on orifice size and function)
Temp. Range:	(Media 90°C max.) Ambient - 10 to +50°C
Response Time:	12-14 ms complete cycle
Materials:	Operator:400 Series Stainless and Brass standard (400 and 300 Stainless optional)Shading Ring:CopperSprings:300 Series StainlessSeals:Viton standard (other materials available on request)Valve Body:DuPont Zytel FE 5105. FDA Approved.
Media:	Air, oil, inert gas, water, caustics, etc.
Mounting:	Ø.150" drill, 2 places for a #8 self-tapping screw
Coil Data:	Glass filled nylon encapsulation (Class F, continuous duty) DIN spades (11 mm centers) or flying leads – 22 ga. wire w/PVC insulation – 18" long 5 watt standard (other wattages available on request) All standard industrial voltages Voltage Tolerance: +/- 10% Connectors available for DIN Spades – see page bottom for part numbers.

Stackable Composite Solenoid Valves

# Series 3953

The 3953 contains all the features of the Series 3853 but can be stacked into a multiple output bank of solenoid valves. The Series 3953 features a fully encapsulated coil, spring compensated plunger seats for long life and a miniature stackable composite valve body. The advantage to this design is the versatility to stock single units and build, mix and match to meet specifications. In most cases the Series 3953 reduces inventory costs and lowers cost per installation over conventional manifold valve series. The coils are available with DIN quick connect pin out or flying leads.



6

Directional Control Valves Stackable Composite

Series 3953

#### Technical Data

Functions			0														
Function:	2-way, 2 position and 3-way, 2 position direct acting, normally closed																
Port Sizes:	1/8" NPT ORIFICE SIZE / VOLTAGE																
Orifice Sizes/ Flow Factor:	F U 0.6 mm / .025 Cv N			0.6 mm 1.0 mm			1.2 mm 1.5 mm			2.0 mm		2.4 mm		3.0 mm			
now ractor.	1.0 mm / .05 Cv	N C		AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
	1.2 mm / .065 Cv 1.5 mm / .08 Cv	T I	2/2 NC	270	270	250	250	250	250	250	250	250	250	200	200	75	60
	2.0 mm / .17 Cv 2.4 mm / .24 Cv	Ó	3/2 NC	250	250	200	200	180	180	160	150	N/A	N/A	N/A	N/A	N/A	N/A
	3.0 mm / .31 Cv	Ν						N	IAX. P	RESS	URE R	ANGE					
Pressure Range:	0-270 PSI (depend	ling on or	fice size a	and fur	nction)												
Temp. Range:	(Media 90°C max.)	Ambient	- 10 to +5	50°C													
Response Time:	12-14 ms complete	e cycle															
Materials:	Operator:400 Series Stainless and Brass (400 and 300 Stainless optional)Shading Ring:CopperSprings:300 Series StainlessSeals:Viton standard (other materials available on request)Valve Body:DuPont Zytel FE 5105. FDA Approved																
Media:	Air, oil, inert gas, w	/ater, cau	stics, etc.														
Mounting:	Ø.150" drill, .250" (	deep for #	8 self tap	ping s	crew												
Coil Data:	Glass filled nylon encapsulation (Class F, continuous duty) DIN spades (11 mm centers) or flying leads – 22 ga. wire w/PVC insulation – 18" long 5 watt Standard (other wattages on request) All standard industrial voltages Voltage Tolerance: +/- 10% Connectors available for DIN Spades – see page bottom for part numbers.																

t

1/4, 3/8, 1/2 NPT 2-Way normally closed/open

# Series 3500

#### 2-Way, 2-Position normally closed/open Process Solenoid Valves

The Series 3500 2-way, 2-position Solenoid valve uses the latest combinations of technologies for materials and function which provide the user with the highest quality, smallest size per Cv of flow and most competitive pricing of any valve on the market. The 3500 utilizes the latest injection molding and forging technologies available which combined garner the highest quality yields of components. When coupled with the solenoid operator and used as a direct acting/pilot operated valve, the 3500 gives full flow throughout the pressure range starting

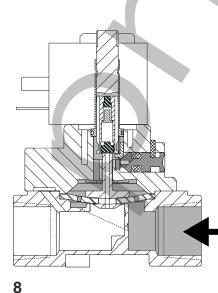
with an MOPD of zero psi. The forged body section gives strength and robustness to the valve and is available in 1/4", 3/8" and 1/2" NPT sizes. The orifice for all sizes is 12.5mm or 1/2". The molded pilot section features a push non-locking manual override, high cycle life solenoid parts and quick connect DIN 43650 "A" electrical connection. Typical applications include air control, inert gas control, water, inert fluids, condensate drainage, hot water plumbing and sprinkler systems.

#### Technical Data

		1					
Function:	2-way, 2 position normally closed internal pilot diaphragm		0	1			
Port Sizes:	1/4", 3/8", 1/2" NPT		1000	N	0	3	
Orifice Sizes:	1/2"				-		
Pressure Range:	0 to 230 PSI 1/4" to 1/2" NPT (Valve requires 1.5 PSI differential to fully open.)		-		-	3	
Flow Factors:	1/4" NPT 1.55 Cv 3/8" NPT 1.95 Cv 1/2" NPT 2.45 Cv						
Temperature Range:	(Fluid max. 90°C) Ambient -10° to +80°C	1		1	20	1	
Response Time:	20 to 80 ms complete cycle				s.		
Materials:	Operator:AISI 400 and 300 Series Stainless Steel or BrassShading Ring:Copper (Silver on request)Seal:Viton standard (Nitrile, EPDM optional)	1	-				
	Diaphragm: Viton standard (Nitrile, EPDM optional)	F	VO	LTAGE			
	Valve Body: Forged brass & glass filled Nylon	U N		AC	DC		
Manual Override:	Push non-locking	C	2/2 NC	230	150		
Media:	Air, oil, water, emulsion, inert gases		2/2 NO	185	150		
Coil Data:	Glass filled nylon encapsulation (Class F, continuous duty) 10 watt VDC, 8 watt VAC. All standard industrial voltages. Voltage tolerance: +/- 10% Connectors available for ISO "C-Tab" Spades – see next page for part nu	N	MAX. PRE	ESSUR	E RAN(	ЭЕ	
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® Zytel is a registered trademark of DuPont

#### Principle of Operation

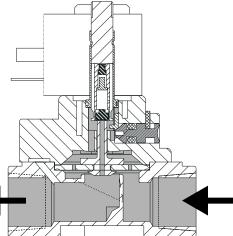


#### **Closed Position**

With no supply pressure and the valve de-energized, spring force from the armature holds the valve closed. As the supply pressure is increased, pressure builds up on top of the diaphragm via the bleed hole. This force, acting on the larger effective area, holds the valve closed (in conjunction with the armature spring).

#### **Open Position**

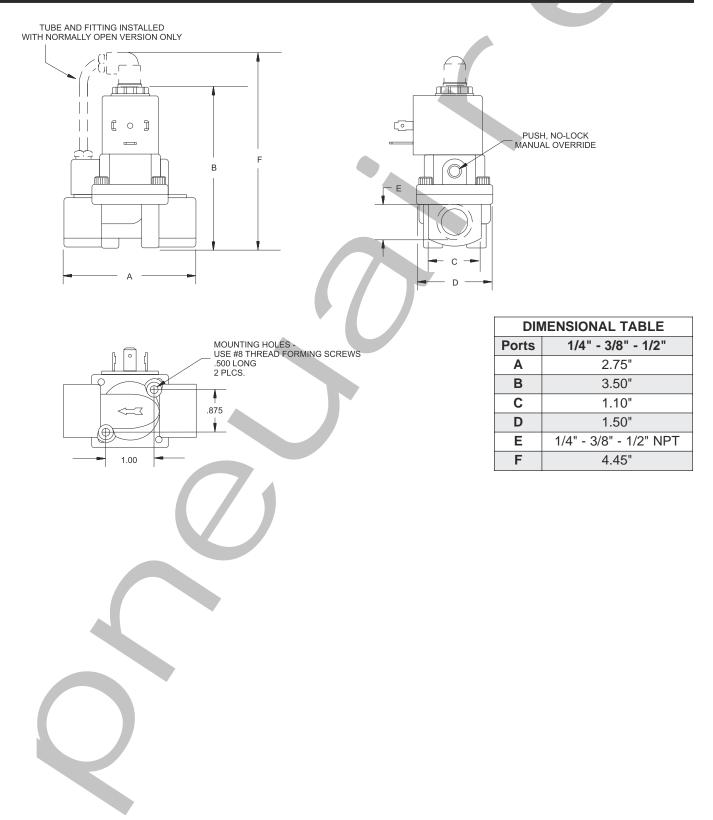
When energized with no supply pressure, the armature lifts allowing the pre-loaded diaphragm to lift, opening the valve. When supply pressure is applied, pressure above the diaphragm is relieved via the open pilot gallery. The fluid pressure below assists in holding the diaphragm open.



1/4, 3/8, 1/2 NPT 2-Way normally closed/open

Series 3500

#### **Dimensional Data**



1/4, 3/8, 1/2 NPT 2-Way normally closed/open

# Series 3510

#### 2-Way, 2-Position Process Composite Solenoid Valves

The Series 3510 2-way, 2-position Solenoid valve uses the latest technologies for materials and function which provide the user with the highest quality, smallest size per Cv of flow and most competitive pricing of any valve on the market. The 3510 utilizes the latest injection molding technologies available which make the 3510 compatible with many fluids and other media. When coupled with the solenoid operator and used as a direct acting/pilot operated valve, the 3510 gives full flow throughout the pressure range starting with an MOPD of zero

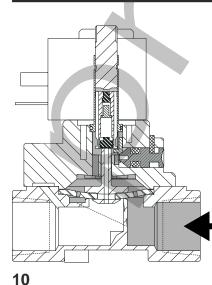
psi. The polymer body section is available in 1/4", 3/8" and 1/2" NPT sizes and features a stainless steel anti-flex ring for port strength. The orifice for all sizes is 12.5mm or 1/2". The molded pilot section features a push non-locking manual override, high cycle life solenoid parts and quick connect DIN 43650 "A" electrical connection. Typical applications include air control, inert gas control, potable water (NSF versions), condensate drainage, hot water plumbing and sprinkler systems.

#### Technical Data

roominour Data				1 . A.	1.13	
Function:	2-way, 2 position internal pilot diapl			0	10	
Port Sizes:	1/4", 3/8", 1/2" NF	т		Ser. O		0
Orifice Sizes:	1/2"			1.50	E	
Pressure Range:	0 to 150 PSI 1/4" (Valve requires 1.	to 1/2" NPT 5 PSI differential to fully open.)				AL
Flow Factors:	1/4" NPT 1.55 Cv 3/8" NPT 1.95 Cv 1/2" NPT 2.45 Cv				/	0
Temperature Range:	(Fluid max. 90°C)	Ambient -10° to +50°C		N.	~	
Response Time:	20 to 80 ms comp	olete cycle	1			
Materials:	Operator: Shading Ring: Seal: Diaphragm: Valve Body:	AISI 400 and 300 Series Stainless Steel or Brass Copper (Silver on request) Viton standard (Nitrile, EPDM optional) Viton standard (Nitrile, EPDM optional) DuPont Zytel <sup>®</sup> 77G33,				
		glass filled nylon, NSF approved	F	VO	LTAGE	·
Manual Override:	Push non-locking		U N		AC	DC
Media:	Air, oil, water, pot	able water, emulsion, inert gases	C T	2/2 NC	150	150
Coil Data:	Glass filled nylon	encapsulation (Class F, continuous duty)	l O	2/2 NO	150	120
oon bata.	10 watt VDC, 8 w Voltage tolerance	att VAC. All standard industrial voltages.	N	MAX. PRE	SSUR	E RANGE

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#### Principle of Operation

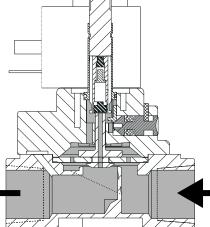


#### **Closed Position**

With no supply pressure and the valve de-energized, spring force from the armature holds the valve closed. As the supply pressure is increased, pressure builds up on top of the diaphragm via the bleed hole. This force, acting on the larger effective area, holds the valve closed (in conjunction with the armature spring).

#### **Open Position**

When energized with no supply pressure, the armature lifts allowing the pre-loaded diaphragm to lift, opening the valve. When supply pressure is applied, pressure above the diaphragm is relieved via the open pilot gallery. The fluid pressure below assists in holding the diaphragm open.



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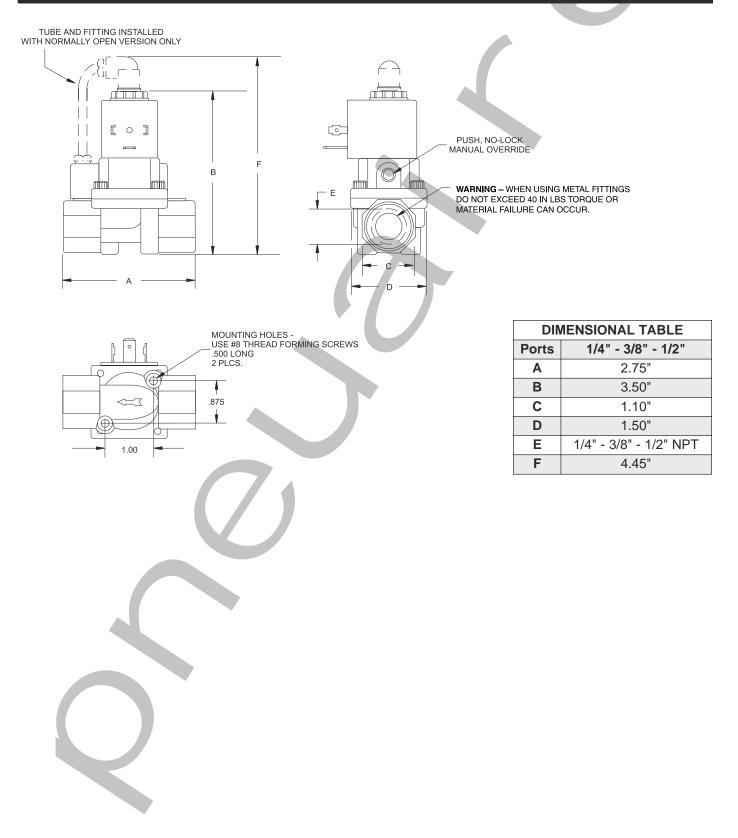
Specifications and prices subje O A D A nout notice or incurring obligation

Directional Control Valves 2-Way

1/4, 3/8, 1/2 NPT 2-Way normally closed/open

Series 3510

#### **Dimensional Data**



### 14 & 34 Series

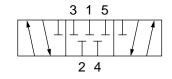
#### 1/4 NPT & 3/8 NPT Ported, Manual & Pilot Operated, & Solenoid Controlled Air Valves

1/4 & 3/8 NPT

4-Way, 3 Position

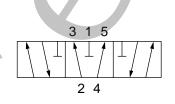
#### New 5 Ported, 3-Position 4-Way Operation

New Spools for 14 & 34 Series Air Valves



4-Way - 5 Ported - 3 Position - Type B "Blocked"

Center position - All ports blocked and isolated. Use on conventional block and hold circuits.



4-Way - 5 Ported - 3 Position - Type F "Float"

Center position - Inlet blocked

Cylinders open to exhaust

Used to vent both ends of cylinder to allow cylinder to float with a manual or machine movement. Flow controls or exhaust speed controls should not be used.

#### 1/4 NPT & 3/8 NPT Ported, Pilot Operated Air Valves

#### 5 Ported, 3-Position 4-Way Operation

#### Features

- Aluminum bar body
- Anodized black
- Honed and burnished bore
- Delrin spool, Pressure balanced
- Buna N seals
- May be used as either single inlet-dual exhaust or dual inlet-single exhaust

Pre-lubed with Magnalube–G<sup>®</sup> grease

#### **Operating Range**

- Operating Pressure ..... 0 to 150 psi
- Minimum Pilot Pressure ..... 50 psi
- Temperature ..... 0° to 180°F
- Cv = 1.0 (56.2 SCFM free flow to atmosphere @ 80 psi supply)

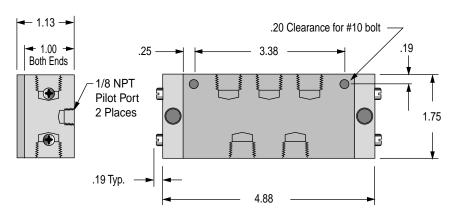
#### Options

Viton Seals, Specify Option -V

Model 14-DPB Shown

	Model Number Guide: 3-Position, Pilot Operated								
	Spring Ce	Replacement							
Spool Type	1/4 NPT Ports	3/8 NPT Ports	Spool and Seals						
B Spool	14 DPB	34DPB	1400-904B						
F Spool	14DPF	34DPF	1400-904F						
Price	\$68	\$20.50							
Viton Adder	(	6.00							

Valve Dimensions

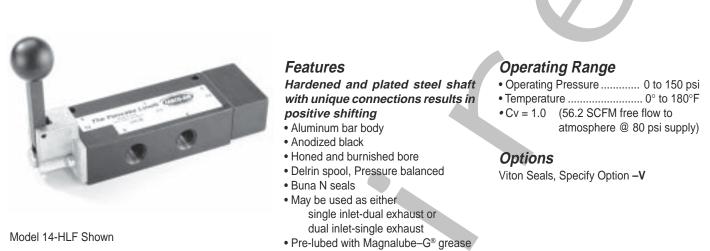


12 Specifications and prices subje ORDER out notice or incurring obligation Documents Provided by Coast Pneumatics ONLINE Directional Control Valves 4-Way, 3 Position

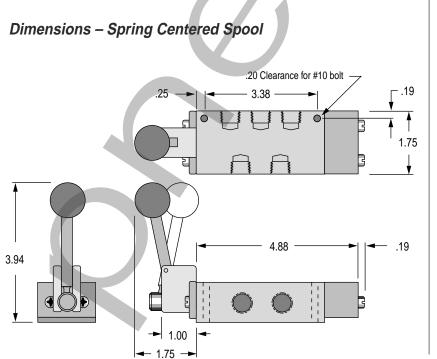
14 & 34 Series

#### 1/4 NPT & 3/8 NPT Ported, Hand Lever Operated Air Valves

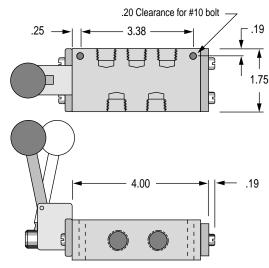
5 Ported, 3-Position 4-Way Operation



Model Number Guide: 3-Position, Hand Lever Operated Spring Centered Spool Replacement **Detented Spool** Replacement Spool & Seals Spool & Seals 1/4 NPT Ports 3/8 NPT Ports 1/4 NPT Ports 3/8 NPT Ports Spool Type 1400-934SB B Spool 14HLSB 34HLSB 14HLB 34HLB 1400-934B F Spool 14HLSF 34HLSF 1400-934SF 14HLF 34HLF 1400-934F



#### Dimensions – Detented Spool



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ONLINE

1/4 & 3/8 NPT 4-Way, 3 Position

# 14 & 34 Series

#### 1/4 NPT & 3/8 NPT Ported, 53 Style Solenoid Controlled, Pilot Operated Air Valves

#### 5 Ported, 3-Position 4-Way Operation



#### Model Number Guide: 4-Way, 3-Position, Spring Centered Double Solenoid Valves

	Conduit Ho	ousing "C"	Grommet H	ousing "G"	Male Mini-Dll	Replacement	
Spool Type	1/4 NPT Ports	3/8 NPT Ports	1/4 NPT Ports	3/8 NPT Ports	1/4 NPT Ports	3/8 NPT Ports	Spool & Seals
B Spool	14-CCB	34-CCB	14-GGB	34-GGB	14-FFB	34-FFB	1400-904B
F Spool	14-CCF	34-CCF	14-GGF	34-GGF	14-FFF	34-FFF	1400-904F

#### Stocked 53 Style Coils, Housings

#### Conduit Housing "C" and Grommet Housing "G"

Non-molded – Class A 221°F (105°C) Rating - 24" Leads of AWG #18 Wire Stocked Voltages: 24, 120 and 240 Volt at 50 or 60 Hertz 6, 12 and 24 Volt DC Temperature Range: 0° to +180°F (-18° to +82.2°C) including ambient Typical response times: AC 4 to 8 milliseconds to open or close DC 9 to 15 milliseconds to open DC 5 to 12 milliseconds to close Male Mini-DIN Housing "F"

- Molded Water tight Class A 221°F (105°C) Rating European (DIN) Style - 11 mm spacing for popular quick connectors. Can also be connected with individual .25" guick-connect terminals Stocked Voltages: 24, 120 and 240 Volt at 50 or 60 Hertz 12 and 24 Volt DC Temperature Range: 0° to +180°F (-18° to +82.2°C) including ambient Typical response times: AC 4 to 8 milliseconds to open or close
  - DC 9 to 15 milliseconds to open DC 5 to 12 milliseconds to close

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#### **Options for 53 Style Solenoids**

- for Conduit Housing "C" and Grommet Housing "G"
- AC Voltages from 5.4 to 575 in 50 or 60 Hertz
- DC Voltages from 3 to 300
- Molded Coil, Option -M Water tight molded coil with Class A221°F (105°C) Rating. Coil completely molded in epoxy for maximum moisture resistance. NEMA 1, 2, and 3 when in Conduit "C" or Grommet "G" housing.
- Potted Coil Option -P Coil is epoxy potted into conduit for "C" housing only. It offers maximum moisture and vibration resistance. NEMA 3R, 3S, 4, 4X, 6, 11, 12, 13
- High temperature Option -H Molded coil with 356°F (180°C) rating
- Viton Seals Option –V (–15° to +400°F)
- Strain Relief Connector Option –Q
- "AN" Connector Option –W
- Splice Box Option -J
- Mounting Bracket Option -R
- Third Wire Ground Option -CC A CSA requirement

- Yoke with standard coil, Option -YB
- Yoke with molded coil, Option -YM
- Yoke with molded spade terminal coil, Option –KM

Yoke replaces housing for protected and control box applications. Molded coil with two .25" spade terminals for quick assembly and disconnect.

• Explosion Proof Option -EP UL File #E37780 CSA File #LR-26894 for hazardous locations includes molded coil UL Class I Groups C & D UL Class II Groups E, F & G NEMA 7C, 7D, 8C, 8D, 9E, 9F & 9G

#### Options for <u>53 Style</u> Solenoids

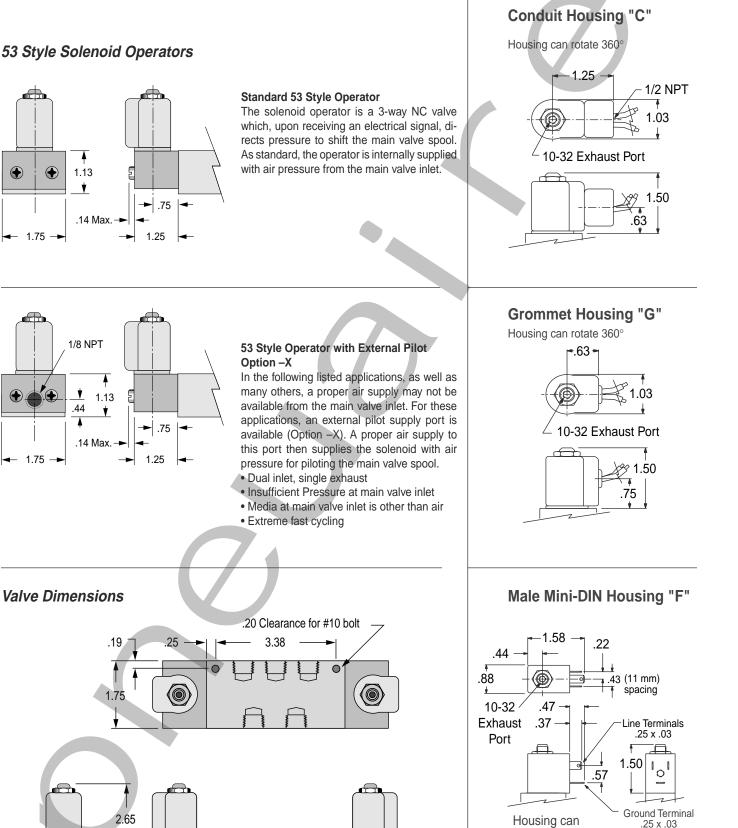
- for Male Mini-DIN Housing "F"
- Viton Seals Option –V (–15° to +400°F)

See Master Price List Page 29 for option prices not shown above

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# 14 & 34 Series



1/4 & 3/8 NPT

4-Way, 3 Position

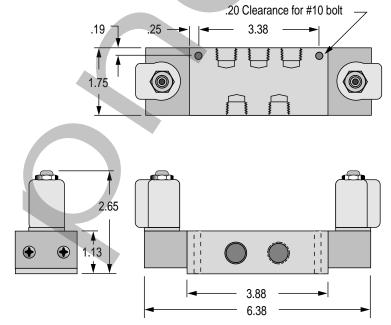
Housing can rotate 360°

Connectors for DIN Spades (11 mm centers): P/N 122-09-N Black housing - No LED ..... \$3.40

P/N 122-09-T-A.1-Voltage Transparent housing and LED ..... 11.10

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Valve Dimensions



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