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## Manual Air Valve Numbering System



Model		# Way & # Position		Port Size (NPT)		Options
Manual Air Valves	MOV	3 Way 2 Position		1/8	(leave blank)	<b>01</b> = Turn Select, <b>02</b> = Roller, <b>03</b> = Button (Momentary) <b>Leave Blank</b> = Plunger (Non-Detented), <b>E</b> = Palm Button (Detented), <b>PB</b> = Palm Push Button (Non-Detented), <b>PPL</b> = Push Button (Non-Detented), <b>PP</b> = Flush Push Button Color Options: <b>G</b> = Green, <b>R</b> = Red
Manual Air Valves	MPV	4 Way 2 Position Toggle	<b>522</b>	1/4	(leave blank)	
Manual Air Valves	MSV	3 Way 2 Position	<b>98322</b>	1/4	(leave blank)	<b>Leave Blank</b> = Plunger (Non-Detented), <b>EB</b> = Emergency Stop Button (Detented), <b>PB</b> = Palm Button (Non-Detented), <b>PP</b> = Flush Push Button (Non-Detented), <b>PPL</b> = Push Button (Non-Detented), <b>R</b> = Roller Lever (Non-Detented), <b>TB</b> = Knob Switch (Detented). Color Options: <b>G</b> = Green, <b>K</b> = Black, <b>R</b> = Red
		4 Way 2 Position	<b>86522</b>			
Hand Lever Valves	TSV	3 Way 2 Position	<b>98322</b>	1/4	(leave blank)	<b>M</b> = Detented, <b>S</b> = Non-Detented (Spring Return)
		4 Way 2 Position	<b>86522</b>			
Hand Lever Valves	4H	4 Way 3 Position (Closed Center)	<b>230C</b>	1/4	(leave blank)	<b>M</b> = Detented, <b>S</b> = Non-Detented (Spring Return), <b>Boot</b> = Rubber Boot, <b>Handle</b> = Black Plastic Handle
		4 Way 3 Position (Exhaust Center)	<b>230E</b>			
		4 Way 3 Position (Pressure Center)	<b>230P</b>			
Pull/Push Valves	3R	3 Way 2 Position	<b>210</b>	1/4	(leave blank)	<b>M</b> = Detented, <b>S</b> = Non-Detented (Spring Return)
	4R	4 Way 2 Position	<b>210</b>			
Hand Valve	HV	4 Way 3 Position	<b>400</b>	1/4	(leave blank)	<b>Leave Blank</b> = Detented
		4 Way 2 Position	<b>410</b>			
Foot Operated Valve	FV	2 Way 2 Position	<b>220</b>	1/4	(leave blank)	<b>Leave Blank</b> = Detented, <b>FT</b> = Rubber Foot Pad for Valve
		3 Way 2 Position	<b>320</b>			
		4 Way 2 Position	<b>420</b>			
	4F	4 Way 2 Position	<b>210</b>	1/4	(leave blank)	<b>Leave Blank</b> = Detented, <b>FT</b> = Rubber Foot, <b>L</b> = Detented (with Lock), <b>G</b> = Guard








### Specifications

Model No.	FV Series	HV Series	MOV Series	MPV Series	MSV Series	TSV Series	3R-4R Series	4F Series	4H Series
Description	Foot Valves	Hand Valves	Hand Valves	Toggle Valves	Hand Valves	Lever Valves	Pull/Push Valves	Foot Valves	Lever Valves
Cv	0.89	1.68	0.67	1.0	0.89	1.0	0.89	1.68	0.89
Operating Pressure	0 to 116 PSI								
Operating Temperature	14 to 140°F (-10 to 60°C)								
Action	Direct Acting								
Working Medium	40 micron filtered air or inert gas								
Body Material	Aluminum (Anodized)								
Seal Material	NBR								
Lubrication	Not Required								

### Specifications

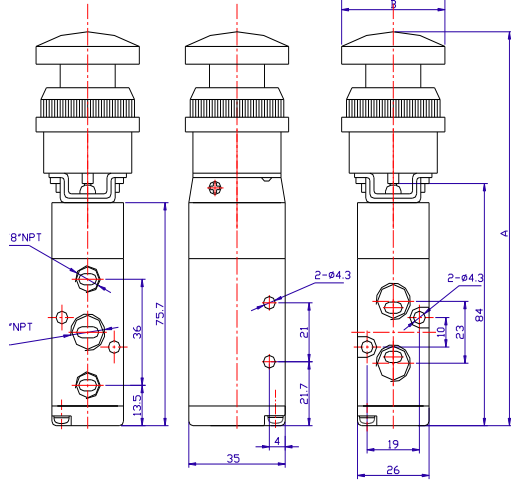
Model No.	ASC Series	AS Series	QE Series	ST Series
Description	Flow Control Valves	Flow Control Valves	Quick Exhaust Valves	Shuttle Valves
Orifice (mm)	1/8" = 4.6; 1/4" = 6.0; 3/8" = 6.2; 1/2" = 9.6; 3/4" = 9.8			
Operating Pressure	0 to 140 PSI	7 to 145PSI	0 to 145PSI	
Operating Temperature	14 to 140°F (-10 to 60°C)			
Working Medium	40 micron filtered air or inert gas			
Body Material	Aluminum (Anodized)			
Seal Material	NBR			
Lubrication	Not Required			

1/4" NPT 4 Way 5 Port 2 Position Air Valves								
<b>Model No.</b>	MSV-86522TB	MSV-86522EB	MSV-86522PB	MSV-86522PP	MSV-86522PPL	MSV-86522R	TSV98522M TSV98522S	4R210-1/4M 4R210-1/4S
<b>Price</b>	\$39.21	\$39.21	\$39.21	\$39.21	\$39.21	\$39.21	\$41.30	\$27.74
<b>Description</b>	Two Position Detented Switch Cv 0.89	Emergency Stop Detented Cv 0.89	Palm Button Momentary Cv 0.89	Push Button Momentary Cv 0.89	High Push Button Momentary Cv 0.89	Roller Lever Cv 0.89	Lever M = Detented S = Non-detented	Pull/Push M = Detented S = Non-detented
1/4" NPT 4 Way 5 Port Air Valves		1/4" NPT 4 Way 5 Port 3 Position Air Valves				1/4" NPT 3 Way 3 Port 2 Position Air Valves		
<b>Model No.</b>	MPV522	<b>Model No.</b>	4H230C-M 4H230C-S	4H230E-M 4H230E-S	4H230P-M 4H230P-S	<b>Model No.</b>	TSV98322M TSV98322S	3R210-1/4M 3R210-1/4S
<b>Price</b>	\$55.67	<b>Price</b>	\$85.55	\$85.55	\$85.55	<b>Price</b>	\$39.21	\$27.04
<b>Description</b>	Toggle Switch Cv 0.89	<b>Description</b>	3 Position, 4 Way Closed Center M = Detented S = Non-detented	3 Position, 4 Way Exhaust Center M = Detented S = Non-detented	3 Position, 4 Way Pressure Center M = Detented S = Non-detented	<b>Description</b>	Lever M = Detented S = Non-detented	Pull/Push M = Detented S = Non-detented
1/4" NPT 3 Way 3 Port 2 Position Air Valves						1/8" NPT 3 Way 2 Port 2 Position Air Valves		
<b>Model No.</b>	MSV-98322TB	MSV-98322EB	MSV-98322PB	MSV98322PP	MSV-98322R	<b>Model No.</b>	MOV-01	MOV-02
<b>Price</b>	\$37.20	\$37.20	\$38.46	\$37.20	\$37.20	<b>Price</b>	\$23.67	\$23.67
<b>Description</b>	Two Position Switch Cv 0.89	Emergency Stop Detented Cv 0.89	Palm Button Momentary Cv 0.89	Push Button Momentary Cv 0.89	Roller Lever Momentary Cv 0.89	<b>Description</b>	Two Position Switch Cv 0.67	Roller Lever Normally Closed Cv 0.67
1/8" NPT 3 Way 2 Port 2 Position Air Valves						1/4" NPT Air Valves		
<b>Model No.</b>	MOV-03EB	MOV-03PL	MOV-03PP	MOV-03PB		<b>Model No.</b>	HV 410	HV 400/420
<b>Price</b>	\$23.67	\$23.67	\$23.67	\$23.67		<b>Price</b>	\$42.60	\$42.60
<b>Description</b>	Emergency Stop Momentary Cv 0.67	Push Button Momentary Cv 0.67	Flush Push Button Momentary Cv 0.67	(Green) Palm Button Momentary Cv 0.67		<b>Description</b>	2 Position 4 Way Valve Cv 1.68	3 Position 4 Way Valve Closed Center Cv 1.68
1/4" NPT Air Valves								
<b>Model No.</b>	FV220-1/4	FV320-1/4	FV420-1/4	4F210	4F210L	4F210G	4F210GL	
<b>Price</b>	\$45.30	\$45.30	\$48.01	\$54.77	\$70.28	\$85.84	\$110.21	
<b>Description</b>	2 Way Momentary Foot Valve	3 Way Momentary Foot Valve	4 Way Momentary Foot Valve	4 Way Momentary Foot Valve	4 Way Detented Foot Valve	4 Way Shielded Momentary Foot Valve	4 Way Shielded Detented Foot Valve	

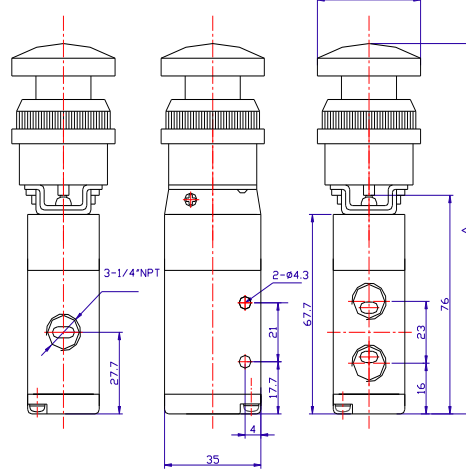
							
<b>Model</b>	Quick Exhaust QE	Shuttle Valve ST	In-line Flow Control ASC	In-line Flow Control AS	Speed Control Muffler BESL	Muffler BSL	Union Valve UV
<b>Port</b>	Part No. Unit Price	Part No. Unit Price	Part No. Unit Price	Part No. Unit Price	Part No. Unit Price	Part No. Unit Price	Part No. Unit Price
10-32						BSL 10-32 \$1.31	
1/8	QE N1/8 \$18.67	ST N1/8 \$18.67	ASC N1/8 \$17.58	AS N1/8 \$11.29	BESL N1/8 \$4.77	BSL N1/8 \$1.31	UV 6-6 \$15.81
1/4	QE N1/4 \$21.09	ST N1/4 \$21.09	ASC N1/4 \$17.58	AS N1/4 \$11.29	BESL N1/4 \$6.77	BSL N1/4 \$2.53	UV 1/4-1/4 \$15.81
3/8	QE N3/8 \$21.09	ST N3/8 \$21.09	ASC N3/8 \$20.29	AS N3/8 \$13.52	BESL N3/8 \$10.38	BSL N3/8 \$3.83	
1/2	QE N1/2 \$24.02	ST N1/2 \$34.43	ASC N1/2 \$24.34	AS N1/2 \$21.17	BESL N1/2 \$14.27	BSL N1/2 \$5.88	

# Push Button Dimensions

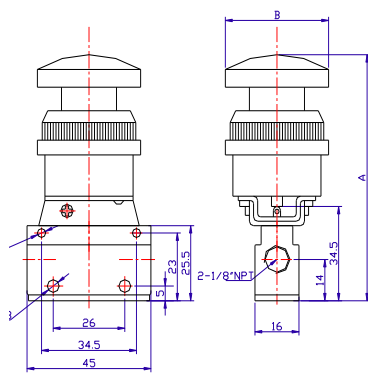
MODEL: MSV86522-XX



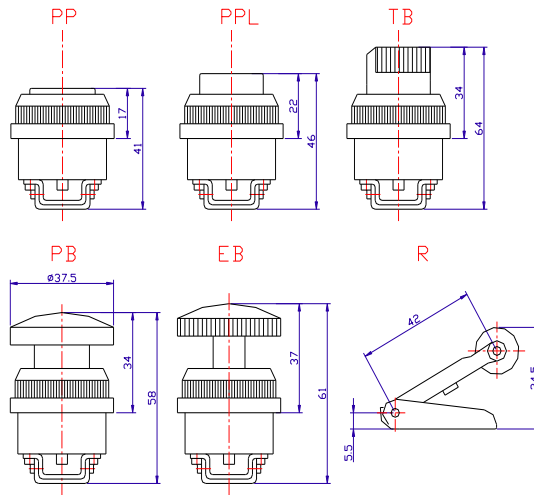
MODEL: MSV98322-XX



MODEL: MDV-XX

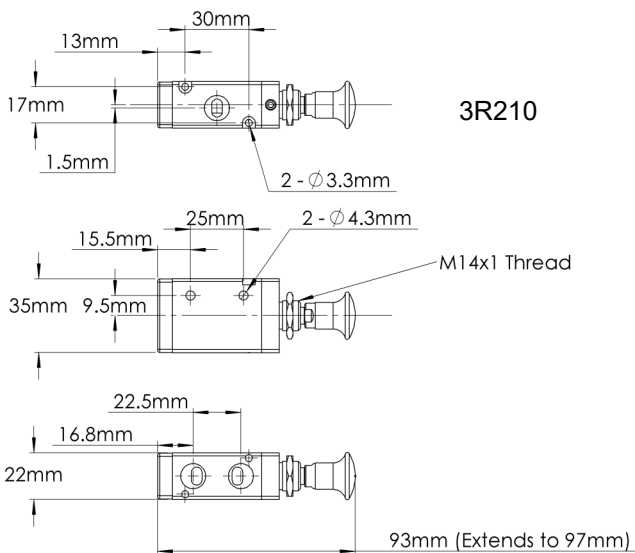


## BUTTON STYLE



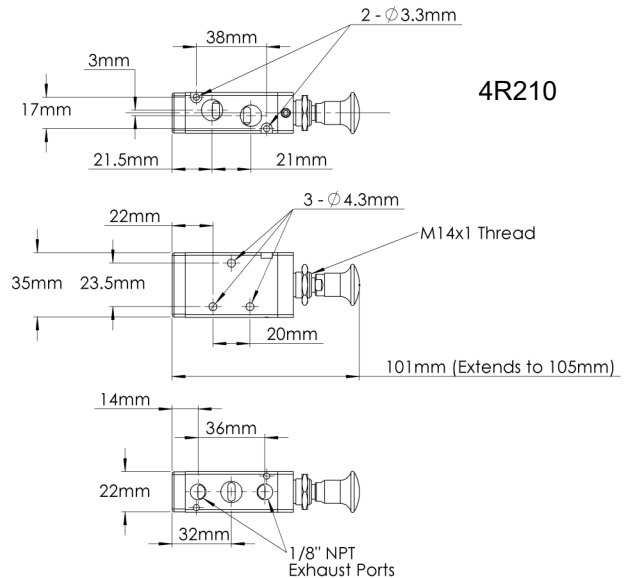
PANEL MOUNT HOLE SIZE 1 3/16" (30 MM)

Unit in (mm)



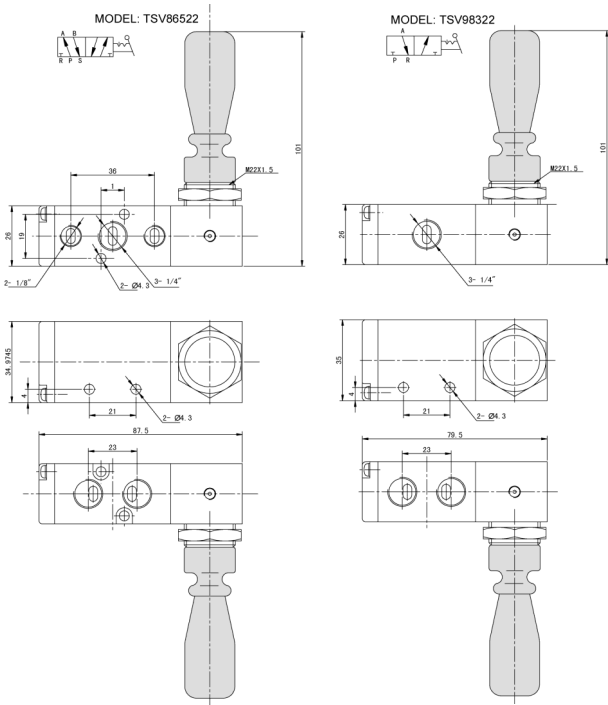
3R210

\*NOTE: Available as either Detented (-M) or Non-Detented (-S)

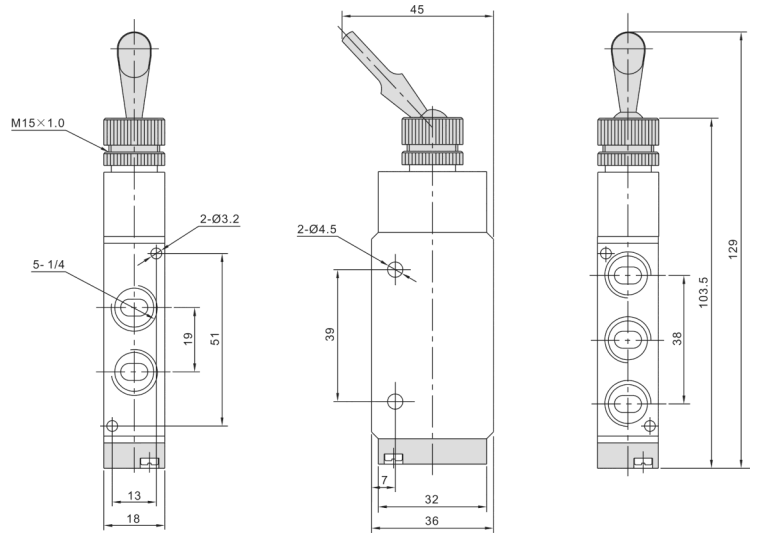


4R210

\*NOTE: Available as either Detented (-M) or Non-Detented (-S)

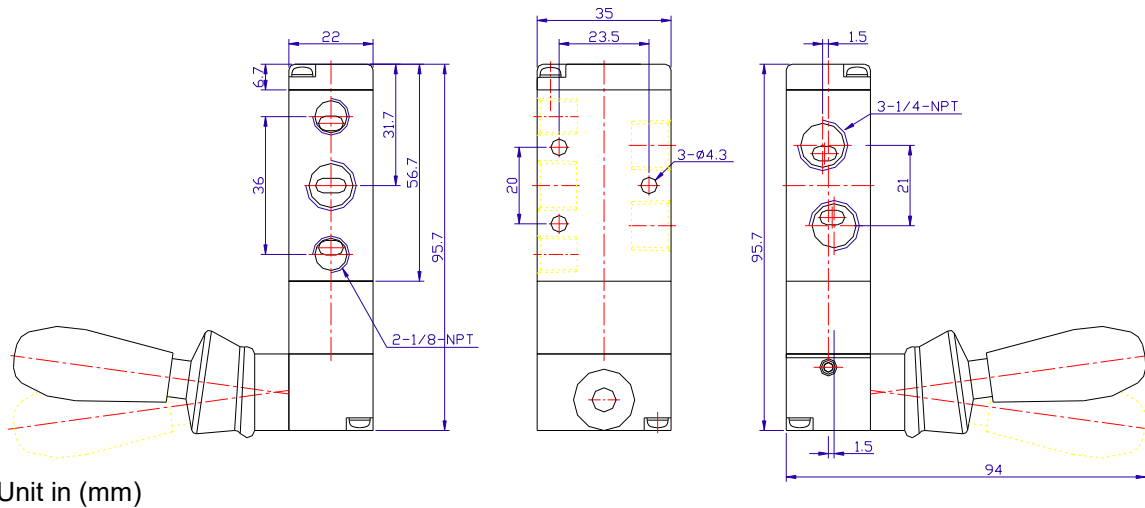
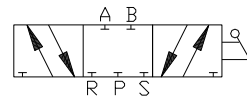


MPV

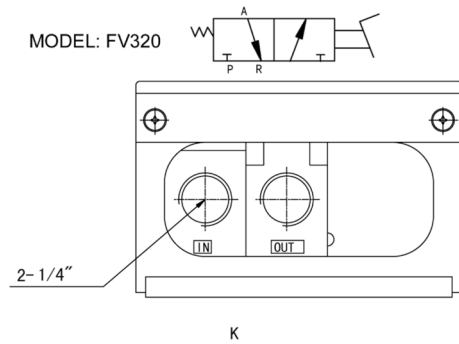
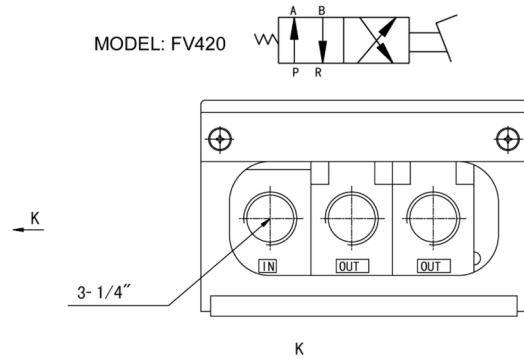
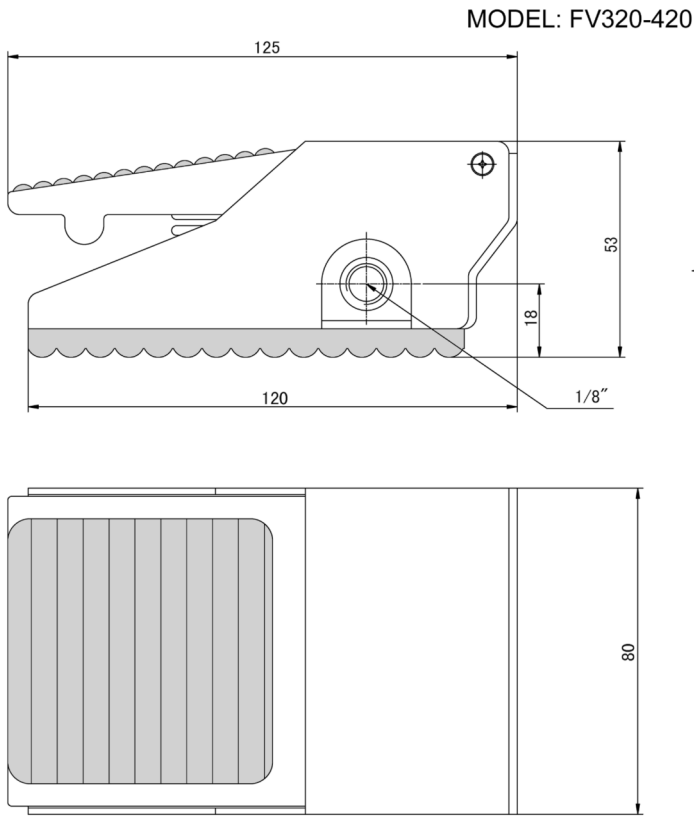
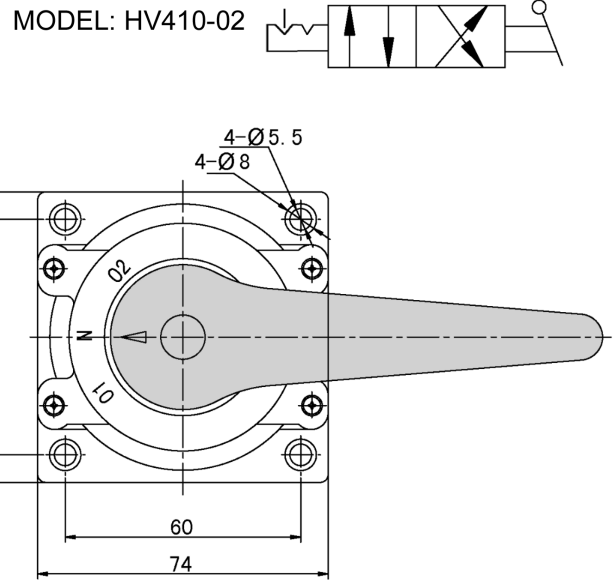
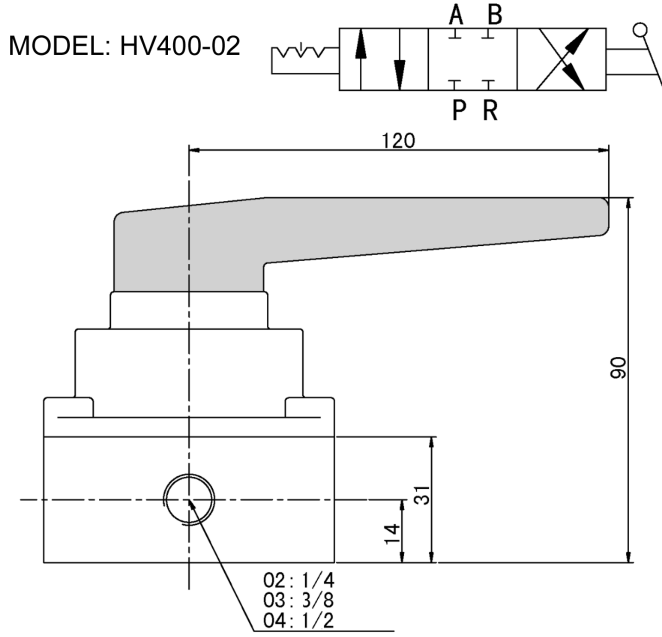


MODEL: 4H230C-1/4

5 PORT 3 POSITION MOMENTARY HAND LEVER VALVE

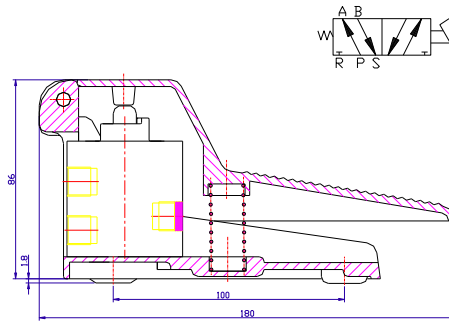
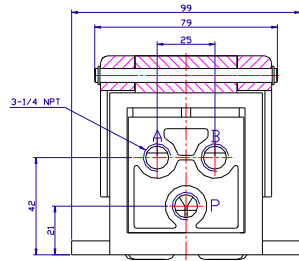


# Hand Lever Dimensions



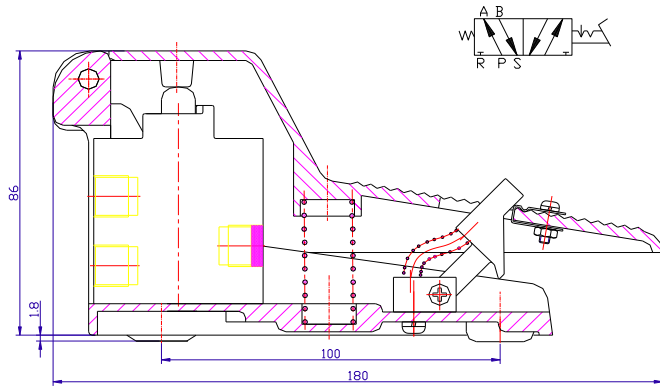
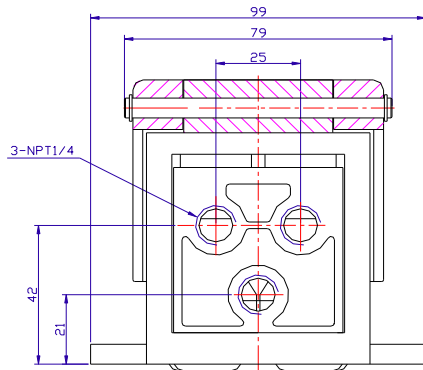
Unit in (mm)

MODEL: 4F210-1/4

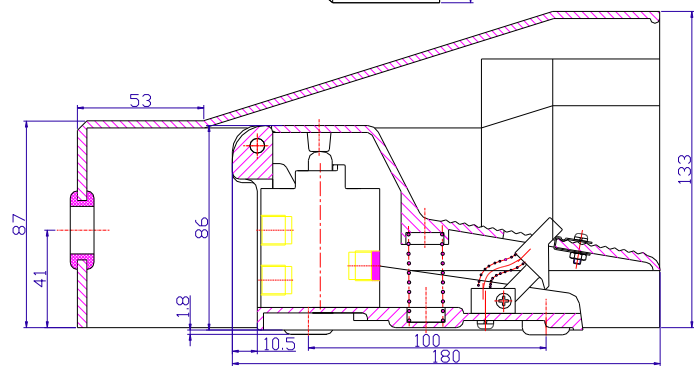
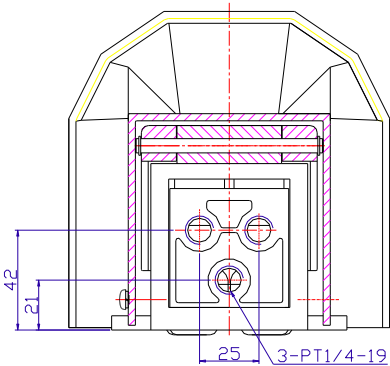
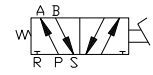
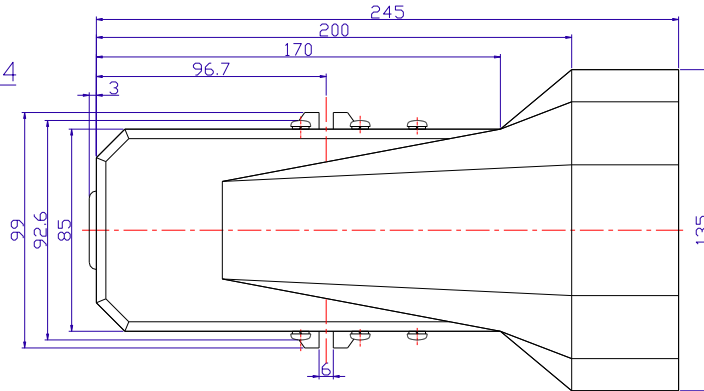


P = AIR INLET PORT  
 A = AIR OUTLET PORT A  
 B = AIR OUTLET PORT B

MODEL: 4F210L-1/4



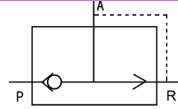
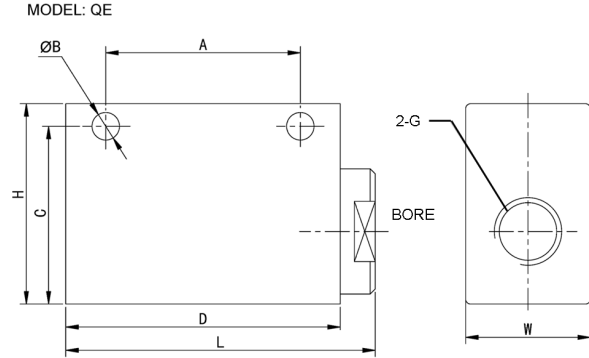
MODEL: 4F210G-1/4



Unit in (mm)

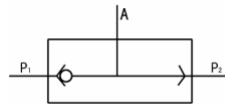
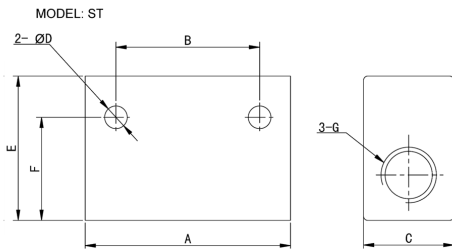


## Quick Exhaust Valve



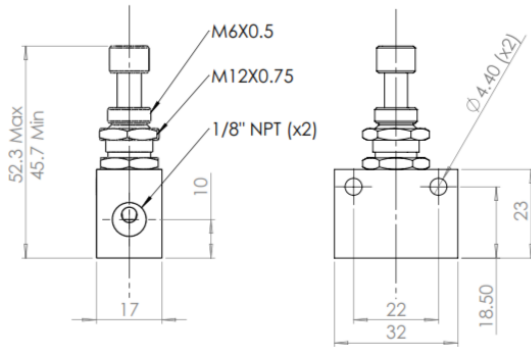
Quick Exhaust Valve (mm)										
Model No.	Bore (NPT)	G (NPT)	L	W	H	A	B	C	D	Cv
QE-01	1/4	1/8	46	20	32	30	4.3	27.0	40	1.0
QE-02	3/8	1/4	62	25	40	39	5.6	33.5	55	1.3
QE-03	1/2	3/8	62	25	40	39	5.6	33.5	55	1.4
QE-04	3/4	1/2	98	38	64	60	8.5	51.0	90	4.0
QE-06	1	3/4	98	38	64	60	8.5	51.0	90	4.1

## Shuttle Valve

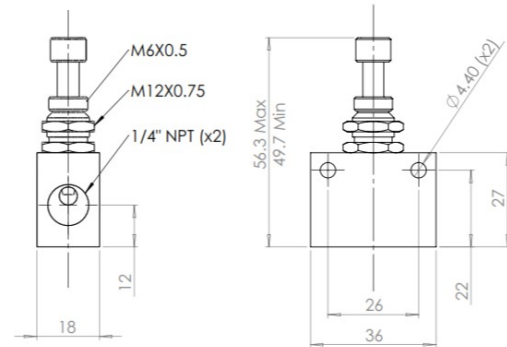


Shuttle Valve (mm)								
Model No.	A	B	C	D	E	F	G (NPT)	Cv
ST-01	40	24	16	4.5	25	21	1/8	0.35
ST-02	50	35	22	5.5	35	25	1/4	1.0
ST-03	75	48	30	7.0	50	42	3/8	2.0
ST-04	75	48	30	7.0	50	42	1/2	3.5
ST-06	110	72	40	7.0	70	58	3/4	6.0
ST-08	110	72	40	7.0	70	58	1	100.

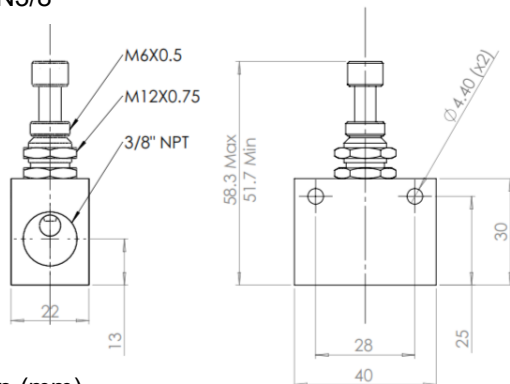
### ASC N1/8



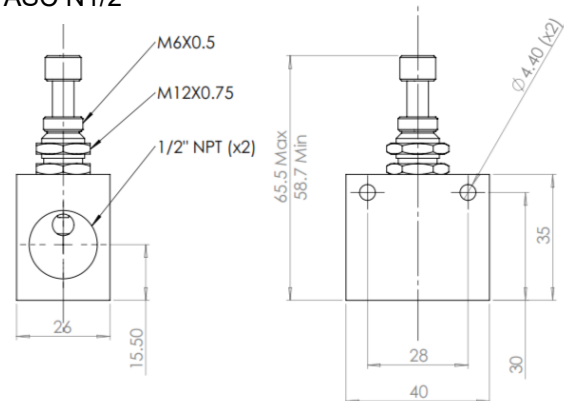
### ASC N1/4



### ASC N3/8



### ASC N1/2



Unit in (mm)